Md.

THE DRUG AND COSMETIC INDUSTRY

ESTABLISHED 1914

Formerly Called "DRUG MARKETS"

August, 1933

Editorials 111

A Happy Combination—Next–the Drug Act—Drug Products.

Feature Articles

With the Blue Eagle 113
What's New in Medicines 115
Inhalants 117
Emulsion Flavors 118
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VOL. XXXIII **DRUG MARKETS, INC.** NUMBER 2

PUBLISHERS

Publication Office, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 101 W. 31st St., N.Y. City

Editor
THOMAS R. FARRELL

Business Manager
FRAZER V. SINCLAIR

PUBLISHED MONTHLY AT PITTSFIELD, MASS., SUBSCRIPTION PRICE, TWO DOLLARS A YEAR, IN ADVANCE, FOREIGN COUNTRIES THREE DOLLARS, THREE WEEKS' NOTICE IS REQUIRED TO CHANGE SUBSCRIBER'S ADDRESSES, AND WHEN NOTIFYING KINDLY GIVE BOTH OLD AND NEW ADDRESSES; PRINTED BY THE SUN PRINTING COMPANY, PITTSFIELD, MASS. ENTERED AS SECOND CLASS MATTER, JANUARY 1, 1928 AT THE POST OFFICE AT PITTSFIELD, MASS., UNDER THE ACT OF MARCH 3, 1879.

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D&O
ESTABLISHED IN 1798

ESSENTIAL OILS
and Kindred Products

VANILLA

BOURBON MEXICAN
JAVA SOUTH AMERICAN

▪ ▪ ▪

BALSAMS

PERU COPAIBA TOLU STYRAX

▪ ▪ ▪

GUM BENZOIN

SIAM SUMATRA

▪ ▪ ▪

Our constant importations of the above products from countries of origin place us in position to always supply prime goods at lowest market prices.

OIL SANDAL E I, U S P

Our own distillation from the wood.

SEND US YOUR INQUIRIES

DODGE AND OLCOTT COMPANY
180 Varick Street New York City

"The integrity of the house is reflected in the quality of its products."
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Buyers' Guide

The firms listed below are reliable sources of supply which we are glad to recommend to our readers.

Medicinal Chemicals
Abbott Laboratories
J. T. Baker Chemical Co.
Benzol Products Co.
California Fruit Growers Exchange
Dow Chemical Co.
Heyden Chemical Corp.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Works
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.
Sherka Chemical Co.

Alcohol
A. K. Hamilton
Rossville Commercial Alcohol Corp.
U. S. Industrial Alcohol Co.

Alkaloids
Abbott Laboratories
J. T. Baker Chemical Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Bromides
J. T. Baker Chemical Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Citric Acid
H. J. Baker & Bro.
J. T. Baker Chemical Co.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.

Glandular Products
Wilson Laboratories

Magnesia
Schofield-Donald Co., Inc.

Salicylates
J. T. Baker Chemical Co.
Dow Chemical Co.
Heyden Chemical Corp.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Works
N. Y. Quinine & Chemical Works

Aromatic Chemicals
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co., Inc.
Benj. French, Inc.
Fritzsche Brothers, Inc.
General Drug Co.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Compagnie Parento, Inc.
Sherka Chemical Co.
A. M. Todd Co.
Ungerer & Co.
van Ameringen-Haebler, Inc.

Essential Oils
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
Magnus, Mabee & Reynard, Inc.
Compagnie Parento, Inc.
A. M. Todd Co.
Ungerer & Co.
van Ameringen-Haebler, Inc.

Flavors
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
A. K. Hamilton
Magnus, Mabee & Reynard, Inc.
Monsanto Chemical Works
Compagnie Parento, Inc.
Ungerer & Co.
van Ameringen-Haebler, Inc.

Cocoa Butter
R. F. Revson Co.

Cod Liver Oil
W. Benkert & Co., Inc.
P. R. Dreyer, Inc.

Mineral Oil
M. W. Parsons, Imports
S. Schwabacher & Co., Inc.
Stanco Distributors, Inc.

Quinine
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Cosmetic Materials
M. W. Parsons, Imports
John Powell & Co., Inc.
R. F. Revson Co.

Cosmetics (Private Brand)
Sterling Manufacturing Co.

Bath Crystals
Solvay Sales Corp.

Botanical Drugs
W. Benkert & Co., Inc.
J. L. Hopkins & Co.
Peek & Velsor, Inc.
S. B. Penick & Co.

Absorption Bases
Th. Goldschmidt Corp.
M. W. Parsons, Imports

Beeswax
Koster-Keunen
Theodor Leonhard Wax Co., Inc.
Will & Baumer Candle Co.

Chalk
Industrial Chemical Sales Co. Inc.
John & E. Sturge, Ltd.
Universal Gypsum & Lime Co.

Colors
Interstate Color Co., Inc.
R. F. Revson Co.

Gums
Thurston & Braidich

Lanolin
American Lanolin Corp.
Bopf-Whittam Corp.

Stearates
Franks Chemical Products Co.
Mallinckrodt Chemical Works
M. W. Parsons, Imports

Titanium Dioxide
Titanium Pigment Co.

Zinc Oxide
New Jersey Zinc Co.

Containers & Machinery

Bottles
Carr-Lowrey Glass Co.
Hart Glass Mfg. Co.
Hazel-Atlas Glass Co.
Maryland Glass Corp.
Owens-Illinois Glass Co.

Boxes & Cartons
Crosby Carton Co., Inc.
C. F. Hatch Co.

Collapsible Tubes
National Collapsible Tube Co

Glassine Paper
Riegel Paper Corp.

Packing Material
Kimberly-Clark Corp.

Vials
Kimble Glass Co.

Corks
Armstrong Cork & Insulation Co.

Metal Caps
Aluminum Seal Co.
Anchor Cap & Closure Corp.
Armstrong Cork & Insulation Co.
Crown Cork & Seal Co.
Ferd. Gutmann & Co.
Phoenix Metal Cap Co.

Molded Caps & Containers
Anchor Cap & Closure Corp.
Armstrong Cork & Insulation Co.
General Plastics, Inc.
Resinox Corp.

Liners
Armstrong Cork & Insulation Co.

Tablet Counting & Filling Machinery
John W. Ayers & Son

Capping, Filling & Packaging Machinery
Arthur Colton Co.
Karl Kiefer Machine Co.
Geo. G. Rodgers Co.
Chas. Ross & Son Co.
F. J. Stokes Machine Co.
Stokes & Smith Co.
U. S. Bottlers Machinery Co.

Tanks, Kettles & Mixing Equipment
Ertel Engineering Corp.
Pfaudler Company
Chas. Ross & Son Co.
F. J. Stokes Machine Co.
U. S. Bottlers Machinery Co.

Production Equipment
Ertel Engineering Corp.
Karl Kiefer Machine Co.
Pfaudler Company
Chas. Ross & Son Co.
U. S. Bottlers Machinery Co.

Give Lemon Oil the "extract test"

Only Exchange Lemon Oil gives a clear-yellow sludgeless solution

MADE WITH EXCHANGE COLD PRESSED OIL OF LEMON — MADE WITH ANOTHER BRAND BOUGHT ON THE OPEN MARKET

Unfiltered 5% (by Volume) Solutions of Lemon Oil in 95% Alcohol

NOTICE when you add alcohol to the new Exchange Brand Oil of Lemon that it gives an absolutely clear extract.

There is none of the cloud or sediment you encounter in using most other oils. You get immediately a clear-yellow extract for use in your products. Without delay. Without filtration. Without waste!

The Exchange process of manufacture removes the troublesome insoluble substances that cause muddiness.

Also Improved in Other Ways

This new method also improves the flavor, color and aroma of Exchange Brand Oil of Lemon. These qualities are made possible through the application of Exchange standards of production control plus California lemons.

It is uniform in performance. Stable in your finished products.

Let Results Give Proof

Your interest in better results and lower costs prompts you to make this test at once: Order a small supply of Exchange Brand Oil of Lemon. Give it the "extract test." Test it in your product. Then compare the cost and figure your saving.

A 5% by volume solution of Exchange Oil of Lemon in alcohol conforms to the U. S. Government's definition for lemon extract.

QUICK FACTS

1. **Flavor** that suggests a freshly-cut lemon
2. Finer **Aroma**
3. Deep natural **Color**
4. **Stable** in your finished product
5. **Uniform Performance**
6. **Lower Cost** per unit of flavor

AND NOW...

7. **CLARIFIED.** No sediment. No cloud. No **filtration.** No waste.

Sold to the American market exclusively by

DODGE & OLCOTT COMPANY
180 Varick Street, New York City

FRITZSCHE BROTHERS, Inc.
78-84 Beekman Street, New York City

• *Distributors for*

CALIFORNIA FRUIT GROWERS EXCHANGE
Products Department, Ontario, California

Producing Plant: EXCHANGE LEMON PRODUCTS CO., Corona, Calif.

Exchange

OIL OF LEMON

Copr., 1933, Products Department, California Fruit Growers Exchange

GIVAUDAN-DELAWANNA INC.

LE CHIMISTE
De la Galerie de S.A.S Monseigneur le Duc d'Orléans

80, FIFTH AVENUE_NEW-YORK

NOVO-JASMIN

●

The captivating fragrance of the Jasmin bloom . . . all of its romantic appeal, is found in this synthetic Jasmin.

Novo-Jasmin, whether used alone or in compounds, has all the softness and persistence of natural Jasmin, yet is less expensive. It is good for all preparations, but especially fine for face powders, talcums and soaps.

Novo-Jasmin assures your popular priced cosmetics of a warm reception.

$8.00 per pound

●

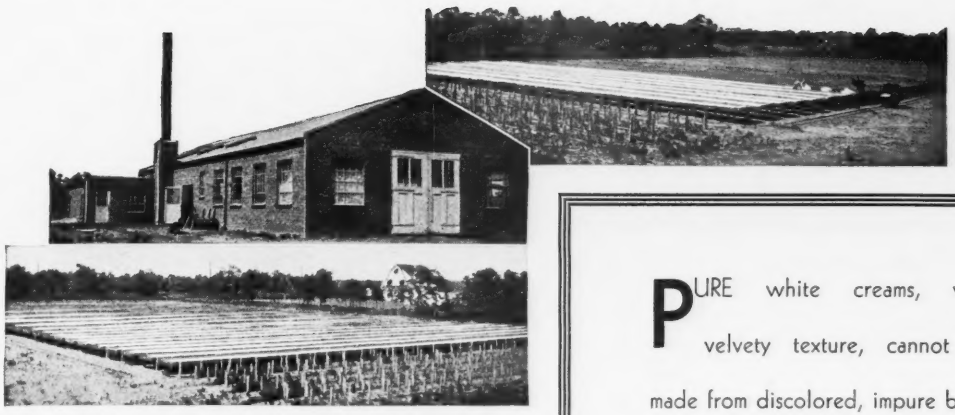
GIVAUDAN-DELAWANNA INC.

80 FIFTH AVENUE NEW YORK, N. Y.

BRANCHES

Philadelphia, Los Angeles, Atlanta, Cincinnati, Detroit, Dallas, Baltimore, New Orleans, Chicago, San Francisco, Montreal, Havana

KOSTER KEUNEN



SUN-BLEACHED BEESWAX

Beeswax guaranteed 100% sunbleached without any chemicals. Visit our bleacheries and convince yourself.

PURE white creams, with velvety texture, cannot be made from discolored, impure beeswax. Good creams demand the best beeswax obtainable.

The aim of the Koster Keunen organization has been to produce pure white beeswax, of the finest quality.

Facilities include 5 acres under ideal sun conditions, at Sayville, Long Island. Over 80 years' experience in Europe serve as a background in producing this superior product. We will gladly send samples without obligation.

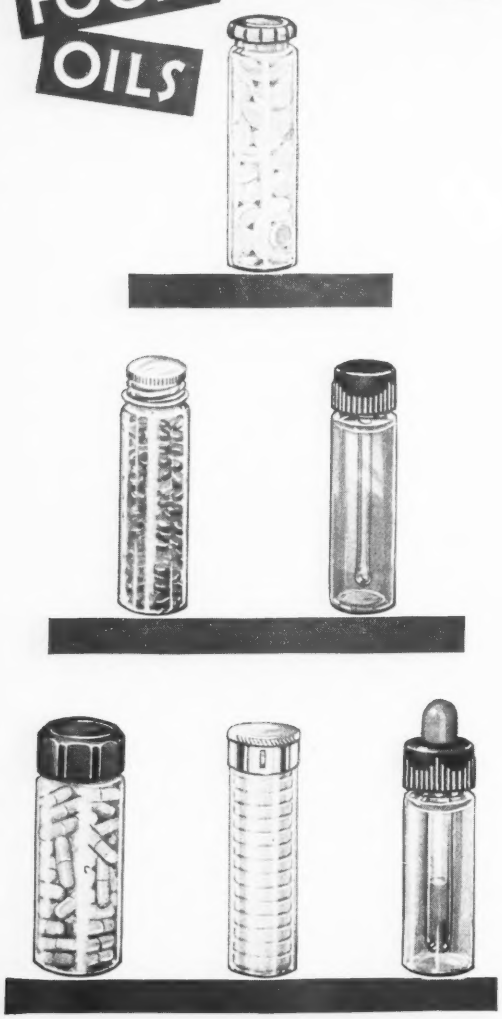
KOSTER KEUNEN

SUNBLEACHED and YELLOW BEESWAX

Sayville (Long Island) New York

DRUGS
TOILETRIES
PERFUMES
PROPRIETARIES
FOODS
OILS

Unlimited in Sampling and Packaging applications



KIMBLE Glass Vials are playing an increasingly important role today in the field of intensive selling. Sampling—the art of reaching out and putting your product in the hands of your potential buyers—is more popular than ever, and is calling for more and more Kimble Vials to meet its demand.

Sampling in Kimble Vials can quickly become your most aggressive and direct form of sales promotion. No other form of container lends itself so ideally to the attractive packaging of products in the drug, pharmaceutical, perfume, proprietary and allied fields. Kimble Vials—automatically machine-made for uniformity, retempered for strength, and artistically closured by many designs and colors of caps—are available in shapes and sizes to meet practically any requirement. Dropper vials, applicator vials, slip-cap or screw cap capsule vials, Re-Seal-It Vials, patent lip vials, and many other types await your command to carry your products to the multitudes, increase dealer and consumer sales, and build up substantial new profits.

Consult with us on your sampling and packaging requirements. Possibly we can point the way to valuable savings and more positive results.

KIMBLE GLASS COMPANY

VINELAND, NEW JERSEY.

NEW YORK • PHILADELPHIA • BOSTON
CHICAGO • DETROIT

ANNOUNCING

a continuation — not a change

IN combining the operations of the Rossville Commercial Alcohol Corporation and those of the American Solvents & Chemical Corporation with its own activities, Commercial Solvents Corporation is mindful of the high reputation for quality of products and excellence of service which has been so justly earned by these two fine pioneer organizations.

The customers of Rossville and of American Solvents can rest assured that there will be not the slightest deviation in the quality of the brands with which they have been so long familiar . . . the same personnel which has served them so faithfully will continue to be at their command, aided by the greatly increased facilities for service which the resources of the combined organizations make available.

COMMERCIAL SOLVENTS CORPORATION

ROSSVILLE COMMERCIAL ALCOHOL CORPORATION

AMERICAN SOLVENTS AND CHEMICAL CORPORATION

STURGE'S STANDARD

If all the tooth paste manufacturers who use Sturge's Standard Precipitated Chalk were asked what particular quality makes Sturge's Chalk essential in their formulas, they would undoubtedly answer Uniformity.

It is true that the value of fluffiness, whiteness and freedom from grit, free alkalies and metals can not be overemphasized.

But it is vital to a good tooth paste to have these qualities and the specific density of the chalk always uniform.

That is why manufacturers of leading tooth paste brands have always specified Sturge's Standard Precipitated Chalk.

PRECIPITATED CHALK

JOHN & E. STURGE, Ltd., Birmingham, England

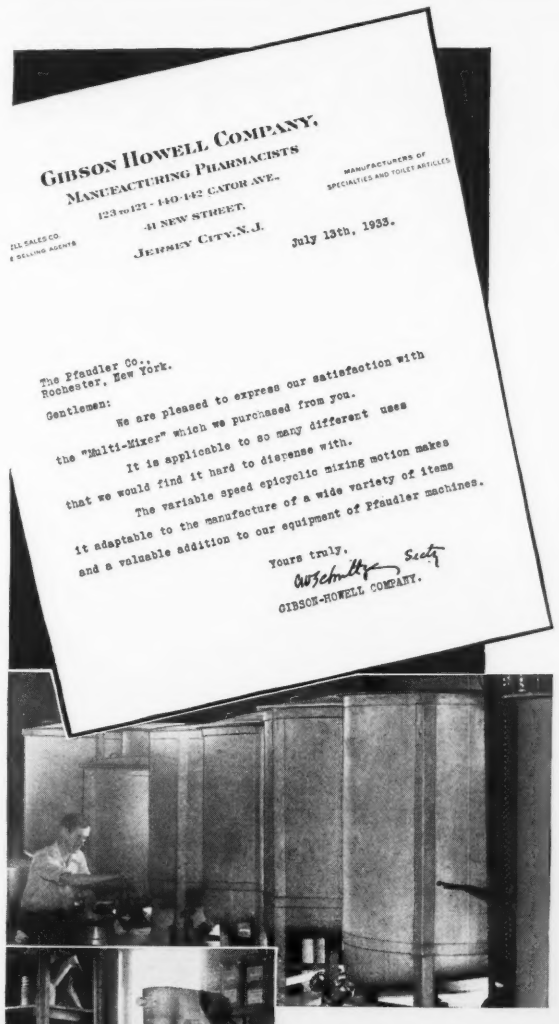
Distributors:

H. J. BAKER & BRO.

271 Madison Ave., New York, N. Y.

FOR A GOOD TOOTH PASTE

MIXING EFFICIENCY *plus* *glass-lined steel equipment . . .*



GIBSON HOWELL COMPANY,
MANUFACTURING PHARMACISTS
123 to 127 - 140-142 CATOR AVE.-
41 NEW STREET,
JERSEY CITY, N.J.

MANUFACTURERS OF SPECIALTIES AND TOILET ARTICLES

ILL SALES CO. & SELLING AGENTS

July 13th, 1933.

The Pfaudler Co.,
Rochester, New York.

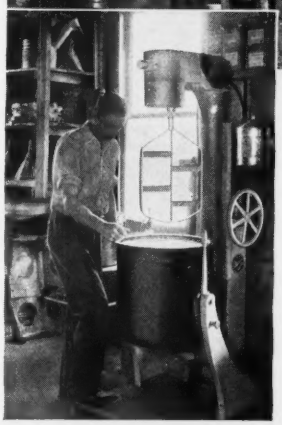
Gentlemen:

We are pleased to express our satisfaction with the "Multi-Mixer" which we purchased from you.

It is applicable to so many different uses that we would find it hard to dispense with.

The variable speed epicyclic mixing motion makes it adaptable to the manufacture of a wide variety of items and a valuable addition to our equipment of Pfaudler machines.

Yours truly,
GIBSON-HOWELL COMPANY.
Secty



Gibson Howell Co., Jersey City, N. J., a user of Pfaudler glass-lined tanks and mixers for years, installed a "Multimixer" a year ago for making brushless shaving cream (see photo at left below), cold cream, and other products. The agitator may be run at varying speeds to suit the product. In the top photo are some of the single shell glass-lined tanks used for handling pharmaceuticals containing alcohol and organic acids.

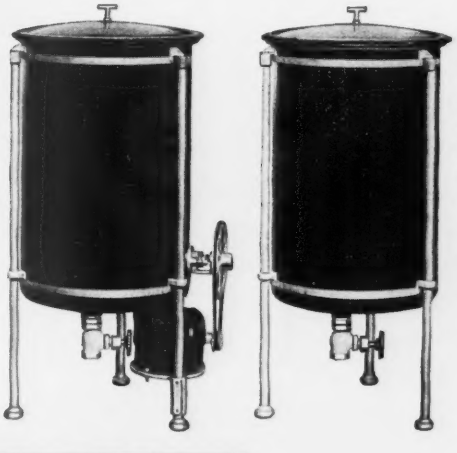
The safest combination for making anything from thin liquids to heavy creams . . . new mixers available.

MIXING efficiency plus acid resistance is responsible for a variety of applications of Pfaudler glass-lined steel equipment in the drug and cosmetic industries.

Take shaving or cold cream, for instance. Either of these products requires agitation which thoroughly mixes with a minimum incorporation of air. The "Multimixer" is just this type of mixer. Different agitators are available, epicyclic in action, furnished with single shell or jacketed glass-lined mixing tanks, all of which multiply the applications for the "Multimixer." Note what Gibson Howell Company says about the "Multimixer" and its uses.

The largest and the smallest plant will find many useful jobs for Pfaudler's "Junior Series" of single shell glass-lined tanks and mixers, ranging from 5 to 100 gallons. Think of it, priced from $12.00 up! Lined with acid resistant glass enamel on the inside, porcelain enamel on the outside. If you haven't the facts, ask for our Bulletins. With commodity prices rising, prompt action is advisable.

THE PFAUDLER CO., 1509 Gas & Electric Bldg., Rochester, N. Y. Branch offices; New York, 8 W. 40th St.; Chicago, 1442 Conway Bldg.; Elyria, O.; San Francisco, The Pfaudler Sales Co., 122 New Montgomery St.



As a mixer, storage tank or container, Pfaudler's "Junior Series" equipment is a "buy." Sanitary, re-resistant to acids, sturdily built, it is made in capacities from 5 to 100 gallons with any combination of features desired, at attractive prices.

GLASS★LINED PFAUDLER EQUIPMENT

Told in Glass

The story of a New Era of
HEALTH, COMFORT and CONVENIENCE

● Into glass go hundreds of additional products every year . . . With ever-increasing momentum we are speeding into an age where glass is more and more one of our expected and accepted utilities. Woven into life—its pleasures and relaxation, its home routine and emergencies, its social events, travel, work and rest—from infancy to old age—are the products that come in GLASS.

Modern processes have brought glass out of the luxury class. The Sixtieth Anniversary of the Owens-Illinois Glass Company represents 60 years of service by thousands of employees whose labor and thought have contributed to this achievement. Backing foresight with courage, Owens-Illinois, at 60 years is striving, as always, to lead the way to new and greater comforts of living.

Technical progress has made possible the widespread distribution of highest quality foods and drinks and a vast variety of other necessities and luxuries in convenient, sanitary glass containers. "Dustop" glass-wool air-filters have provided the means of securing clean, healthful air in homes and buildings at minimum cost. In the building field we have contributed a superior insulation of glass wool and provided a new, colorful building material in the glass block.

From 60 years of hard work in the interest of our customers and the public we have earned the privilege of rendering an ever-increasing service to a nation whose happiness, health and accomplishments depend so much upon GLASS.

OnIzed
PHARMACEUTICAL AND PROPRIETARY WARE

OTHER BISMUTH SALTS MADE BY MALLINCKRODT

Bismuth Beta-Naphthol U.S.P. IX
Bismuth Chloride
Bismuth Citrate
Bismuth Hydroxide
Bismuth Lactate
Bismuth Nitrate Crystals
Bismuth Oxalate
Bismuth Oxide Anhydrous
Bismuth Oxychloride
Bismuth Phenolate
Bismuth Phosphate
Bismuth Salicylate 40%
Bismuth Sub-Benzoate
Bismuth Sub-Gallate U.S.P.
Bismuth Subiodide
Bismuth Sulpho-Carbolate
Bismuth Tannate
Bismuth & Ammonium Citrate U.S.P. IX

•

AT THE WORLD'S FAIR

Among the Mallinckrodt exhibits is a comprehensive presentation of industrial and pharmaceutical uses of Bismuth preparations. Also the Mallinckrodt technical movies and the Voice of Mallinckrodt which presents outstanding examples of modern chemical manufacturing.

•

REMEMBER ALSO THE MALLINCKRODT ANALYTICAL REAGENTS

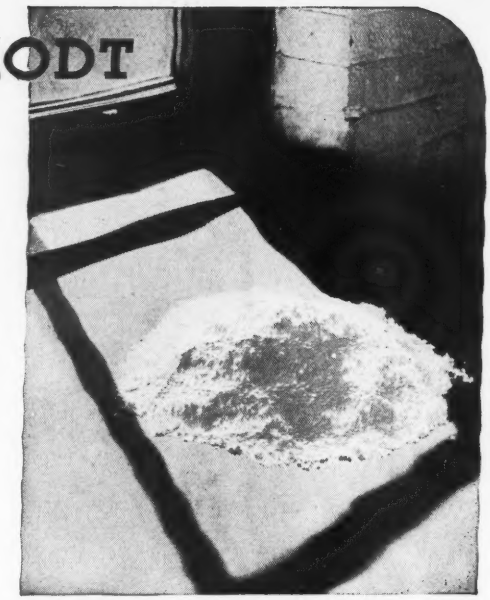
Write for special catalog giving standards of purity.

MALLINCKRODT

New Bismuth Subcarbonate

PERMANENTLY PURE WHITE

Direct Sunlight does not Discolor it



A real advantage when used in pharmaceutical and cosmetic products. Also bulky and more than meets the U.S.P. requirements, having a constant composition of true Bismuth Subcarbonate $(BiO)_2\ CO_3$.

From every standpoint it is the best Bismuth Subcarbonate on the market.

BISMUTH SUBNITRATE U.S.P. MALLINCKRODT

Exceptionally white and devoid of free acid which prevents the development of strong acid odor on storage.

BISMUTH SUBSALICYLATE U.S.P. MALLINCKRODT

Also an unusually white product available in two forms—one almost twice as bulky as the regular kind.

Bulkiness gives greater covering power and bottom suspension properties in water and alcohol.

SAMPLES OF THESE EXCEPTIONAL PRODUCTS GLADLY FURNISHED FOR COMPARISON

ST. LOUIS — *Mallinckrodt* — NEW YORK

CHEMICAL WORKS

Makers of Fine Medicinal Chemicals

Please send samples of the following Bismuth Salts for comparison:

Bismuth Subcarbonate
Bismuth Subnitrate
Bismuth Subsalicylate Regular
Bismuth Subsalicylate Special

Name .....

St. & No. .....

City & State .....

ST. LOUIS · CHICAGO · PHILADELPHIA · TORONTO · MONTREAL · NEW YORK

A Happy Combination

THE Industrial Recovery Act is functioning in aggressive fashion. The inauguration of the blanket code and the blue eagle has had the desired effect of causing business groups to desire speed with regard to the adoption of codes for their respective industries. The various subdivisions of this industry have striven hard to meet the requirements of the Act.

THE so-called Top Code, or Industry Code, offered by the Drug Institute of America has been rejected by the Administration due to the fact that it possessed a monopolistic tendency. The N.A.R.D. code, in preparation of which the Drug Institute aided, has been rejected by some groups of retailers and another code is being prepared by these groups.

ONE thing seems certain as application of the provisions of the NRA progress, and that is that Washington is not going to allow codes to be adopted with provisions which the Administration does not fully understand the meaning of. Nor is the Administration going to allow any self-appointed group to dictate the terms under which a whole trade shall be regulated, especially when these terms attempt to wipe out over night the practices of generations, which in some instances form the life-blood of trade.

EVIDENTLY Washington has no idea that Utopia is at hand. The Administration has no idea that trade practices which cause one company to forge ahead and another to fall behind are all bad. Rugged individualism might not be the best thing in the world, but neither is a business structure under which every company is chained hand and foot. A happy combination of both is probably the most desirable state of circumstances at the moment, and Washington seems to be heading for this.

WITHIN a short time all branches of this industry will be able to operate under approved labor provisions of the various codes. Sometime after the Administration has taken care of labor, correction of some unfair practices will be approved. But the Administration will consider carefully whether or not the so-called unfair practices are unfair to the public at large with much less regard to whether they are merely disturbing competitive practices which do not affect the wages of labor or the welfare of the public.

Next--the Drug Act

When manufacturers in this industry get their affairs adjusted under the conditions imposed upon them by the National Recovery Act, they must quickly and earnestly turn their attention to the proposed Food and Drugs Act. This act, if it is passed, will have a much greater effect upon manufacturers in this industry than anything which the NRA might impose. In fact it seems likely that the Administration in Washington is not particularly interested in controlling this industry to any great extent through the NRA, since it is felt that can more properly be done through the new Food and Drug Law.

From an analysis which we present in this issue it can be seen that there is much for manufacturers to fear in the new law. Not that manufacturers can oppose the law with any degree of success merely because the law is not in the interests of manufacturers, but because the law is decidedly opposed to the public interest. The points where the law clashes with the public interest can be quickly ascertained, and it is on these points that manufacturers should wage their fight.

Attacks are being made upon the law because the restrictions thrown around advertising might harm the business of drug manufacturers and publishers. Such attacks are utterly stupid. How much does the government care about the harm done to these interests if the abuses are opposed to the public interest. There are perfectly good reasons why the public would suffer through the passage of the act. Real headway against many of the dangerous parts of the act can be made if the industry will use its head.

• • •

Drug Products

With this issue we inaugurate a series of articles covering the preparation of various types of drug products. The article in the current issue covers the important group of inhalants. With the next issue we will go further along the road of those products used for the treatment of those ills which are prevalent during the fall and winter.

Whether or not you have constantly been in touch with the latest and most desirable ingredients of these products, you will be interested in following this series. Data is being collected by an expert in the field and these products can well be considered complete and authoritative. Before many months are past we shall cover a long list of important items in the drug field. Watch for these articles.

• • •

New and Non-Official

• • •

Give Me Lipsticks, or . . . . . !

A report from Germany says that lipstick or any other make-up soon will bar German maids and matrons from dances and other social functions arranged by Nazis. Says the official Nazi bulletin, "A doll running about rouged and painted has no right to call herself a German woman and cannot possibly be a National Socialist. Admittance will be denied her to all Nazi functions."

Are a hundred centuries of progress thus to be tossed overboard without leaving the gals so much as a jar of cleansing cream? No—a thousand times, no!

What would New York be like without cosmetics, what would Hollywood be like? What would Red Bank, N. J., or Davenport, Iowa, be like? All right, pick your own spot and ask yourself, "What would this place be like if the gals had no creams, no lotions, no powder, no rouge, no lipsticks, etc., etc.," and then see if you'd stay there under those conditions.

When you get tired asking yourself questions, ask the gals themselves. Ask them if they'd rather have Hitler or makeup? For that matter, ask them if they'd rather have food or makeup.

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Lapse of Memory

One of our very valued contributors has sent in the following:

Professor: "I would like a preparation of phenylisothiocynate."

Drug clerk: "Do you mean mustard oil?"

Professor: "Yes, I can never think of that name."

Keep Off the Grass

We think the beer manufacturers are rather poaching on drug industry property with all this talk of vitamins and enzymes. First thing we know one of our favorite brews will get itself accepted by the A. M. A. and then what will we drink?

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Sense In Advertising

For the benefit of those who are wondering about the necessity of advertising since the arrival of institutes and codes, we quote the following words of wisdom from the "Bystander."

"May we point out that Life Goes On, even under a National Industrial Recovery Act, that babies are still born and raised and go to *College Humor* as usual. That people still spend what money they have. That the purpose of the Act is to give them more money to spend. That the only question is Whose stuff they'll spend it on."

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Business Opportunities

How about the various Nudist magazines as mediums for drug and cosmetic advertising, particularly lotions and salves for poison ivy and insect bites, sunburn ointments, suntan creams, etc.

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N. R. A.

Blanket codes make more strange bedfellows than politics.

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Ten Years Ago

From our pages, August, 1923

Oil eucalyptus has been used as a motor fuel with satisfactory results, according to a report by C. M. Dyer, Australia in the "Chemical Age," London.

John Anderson, of Charles Pfizer & Co., New York, was recently honored at the Union Club on the 50th anniversary of his connection with the company.

Col. Wm. Cooper Procter, president of Procter & Gamble Co., Cincinnati, announces a plan for guaranteed employment of the company's employees for forty-eight weeks in the year, in twenty-seven cities in the United States and Canada, where factories and offices of the company have been established.

In only one commodity, drugs, have 1923 sales been larger than those for the first half of 1920, says the Federal Reserve agent at New York, in the monthly review of trade issued August 1. In ten lines of wholesale trade the report shows a decrease in sales of three per cent between May and June.

With the Blue Eagle

Latest facts regarding application of the NRA are to the effect that labor provisions for this industry will be shortly approved and enforced. However, unfair practice provisions must rest for a while yet until Washington gets time. Drug Institute hits snag.

PRACTICAL application of the provisions of the National Recovery Act are progressing rapidly and within a short time manufacturers, wholesalers, and retailers associated with this industry will know just what provisions they must observe under the Act. Codes have been prepared by all branches of the industry, and these codes are being rapidly approved at least in part by the Administration.

The main provisions of these codes which will immediately affect manufacturers are the hours and wages to which labor will be subject. Provisions are made in most of the codes for controlling unfair competition, but the Administration has announced that it is not ready to consider this phase of the problem until sometime after the labor provisions are accepted and made effective. The Administration explains that it would delay the desire to increase wages and spread employment if they were to take time to go into the rather involved merchandising factors surrounding many industries, and since the immediate step which must result from the NRA is increased purchasing power, this step must be approved for all industries before other factors can be approved.

Many codes have been submitted affecting this industry. The American Manufacturers of Toilet Articles have submitted a code, as have the Perfumery and Cosmetic Institute, the Flavoring Extract Manufacturers Association, the Federal Wholesale Druggists Association, the National Wholesale Druggists Association, and the National Association of Retail Druggists. A code known as the Manufacturing Pharmaceutical and Biological Industry code has been prepared jointly by the American Drug Manufacturers Association and the American Pharmaceutical Manufacturers Association.

What was called by some a "top code" was drafted by the Drug Institute of America and was known as the Industry Code. This code covered unfair practices for the entire trade, with matters of labor being left to the individual branches of the industry. However, this vertical code has been rejected by the Administration in Washington for the reason that officials feel that adoption of such a code might have a monopolistic tendency, and such things must be strictly avoided in application of the NRA. It was after rejection of this vertical code that the National Association of Wholesale Druggists introduced its own code.

While most of the codes have been given out publicly, the joint code of the A. D. M. A. and the A. P. M. A. has not been given out. Reports are to the effect that this code, known as the "Manufacturing Pharmaceutical and Biological Industry code" only contains provisions for labor. The unfair practices aspect of this code will not be submitted until the Administration is ready to consider them. Thus the industry should have no trouble in getting its code approved. Another report with regard to this code is that only one minimum wage is mentioned, this applying to all labor either male or female.

Minimum wages for women are given at 30 cents per hour in the codes of the American Manufacturers of Toilet Articles, the Perfumery and Cosmetic Institute, and the Flavoring Extract Manufacturers Association. Minimum wages for men are given at 45 cents per hour in the codes of the American Manufacturers of Toilet Articles and the Perfumery and Cosmetic Institute; but they are given at 40 cents per hour in the code of the Flavoring Extract Manufacturers Association. Boys of ages 16 to 21 are to be paid a minimum of 35 cents per hour under the A.M.T.A. code. Boys of ages 16 to 18 are to be paid 30 cents per hour under the F. E. M. A. code. Totally unskilled workers, such as messengers, sweepers, etc., are to be paid 30 cents per hour under the P. & C. I. code.

All of the codes in this industry will provide a 40 hour week for laborers. This is evidenced by the fact that all the codes thus far submitted have provided for this.

Two codes have been submitted for the wholesale drug trade. The latest one submitted—that of the National Wholesale Druggists Association specifies a forty-five hour week, and minimum wages of $14.00 per week in cities of 100,000 and over, and of $12.00 per week in cities of less than 100,000 population.

The code submitted by the Federal Wholesale Druggists Association calls for a six day week of forty-four hours with a minimum wage of 25 cents per hour.

Other factors in the code cover either enforcement of the code by the association submitting the code, or the unfair trade practices which will not be accepted by the Administration at the present time.

As to the right to receive the blue eagle, many manufacturers signed the blanket code which called for a thirty-five hour week, and covers the period of August 1 to December 31, 1933, or until such time as a code is approved for the industry of which the signer is a member. Many other manufacturers refrained from signing the blanket code because its provisions were more astringent than the code submitted by the industry. Some prominent attorneys and trade associations officials advised this course. However, things are now moving so rapidly in the adoption of at least the labor provisions of the code that it seems probable that all manufacturers will shortly have the codes of their own industries to work under, and then they will have no alternative,—they must work under the code and they must show the blue eagle or they are violating the law.

In the matter of unfair practices the codes become very involved and it is easy to see why the Administration claims it must have more time for proper consideration of these factors. Legalization of price maintenance; elimination of the practices of imitation, substitution, switching, additional discounts, and many other points are provided for in the codes the retailers, wholesalers and the rejected Industry Code of the Drug Institute of America.

There has been drafted a new retailers' code other than the code of the National Association of Retail Druggists. The N. A. R. D. code has been rejected by the New York State Pharmaceutical Association, alleging that it had been drafted by the Drug Institute of America from the draft originally prepared by the special committee of the N. A. R. D., without the knowledge of the members of the special committee. The code was rejected on the grounds that it was ambiguous and that several provisions of the code were unquestionably detrimental to the interests of the retail druggists. One of the provisions of the code that met with particular objection is said to be that relating to switching, which branded as unfair practice, "the uninvited dissuading or the attempt to dissuade a customer or prospective customer from purchasing an article of a particular brand, trade-mark, or type, which such customer has requested, and persuading or attempting to persuade such customer to purchase an article calculated and designed to serve the same purpose, but of a different brand, trade-mark, or type than the article requested, unless the vendor has not available for sale the article so requested, and unless such fact is so disclosed to such customer or prospective customer."

Industry's Books

Asthma, Hay Fever and Related Disorders, by Samuel M. Feinberg, 119 pages, Lea & Febiger, Philadelphia, $1.50 net.

This work is designed as a guide for patients and hence is confined to a simple explanation of the subject of allergy. Most of the discussion is given to asthma, although hay fever, eczema and migraine are also discussed.

The National Industrial Recovery Act, by Benjamin S. Kirsh, Central Book Co., New York, $2.50 net.

A practical discussion of the industrial control provisions of the National Recovery Act. Among other things it carries a section on an explanation of the act, together with an outline summary of its provisions and a complete copy of the act. All of these features are of interest to the business man.

Food Allergy, by Albert H. Rowe, 442 pages, Lea & Febiger, Philadelphia, $5.00 net.

This well-known work continues to be the standard one on the subject of food allergy. Diagnosis and treatment are stressed throughout, while there is a complete section on the now famous "trial diets." Now that the effects of proper and improper diet is well recognized as a causative factor in many apparently unrelated ailments, this book should be more than ever of value to doctor, patient and food and drug manufacturers.

Industrial Purchasing, by Howard T. Lewis, 536 pages, Prentice-Hall, Inc., New York, $5.000 net.

This is the first book ever published under the auspices of the National Association of Purchasing Agents and the first official guide to the subject of purchasing. Contains practical information and useful suggestions and presents, for the first time, the methods, forms, systems and practices which the most successful purchasing men have adopted.

The Universe of Light, by Sir William Bragg, 279 pages, Macmillan Co., New York, $3.50 net.

This book, designed for the general reader, gives a short account of how our modern knowledge of physical science has been built up from the experiments and reasonings of the great pioneers in the study of light. Attractively and completely illustrated.

Business Under the Recovery Act, by Lawrence Valenstein and E. B. Weiss, 314 pages, McGraw-Hill Book Co., New York, $2.50 net.

This book concerns itself primarily with the effects of the National Industrial Recovery Act on the marketing phases of business. Consequently it places most of the emphasis upon merchandising, advertising and the retail selling problem in the light of new conditions. Also contains the Act reproduced in full text.

The Mode of Action of Drugs on Cells, by A. J. Clark, 298 pages, Williams & Wilkins Co., Baltimore.

The purpose of this volume is to try to discover what laws can be postulated regarding the combinations formed between drugs and cells. There are chapters on the physico-chemical laws and kinetics of cell-drug reactions, mode of action of hormones and vitamins, time action curves, drug antoagonisms, etc.

(*Continued on page 120*)

What's New in Medicines

Still more combinations of drugs are offered in foreign markets for treatment of human ills. These preparations continue to point the trend of therapy abroad.

Chemodyn—Granules or tablets. 100 to 250 cc. tubes and tubes containing 24 tablets. Contains substances with strong bactericidal action, such as potassium ortho-oxyquinolin sulfate; also glucosides of chamomille, which reduce inflammation and as an intestinal sedative the active principle of garlic. For prophylactic treatment of intestinal infectious diseases; in therapy of amoebic dysentery and resulting effects, colitis ulcerosa and colitis membranacea, hepatitis, bacterial dysentery, valantidium, lambliar and trichomonasis infections. Institut fuer angewandte Hygien G.m.b.H., Hamburg.

Colotto—Capsules, containing 26 to 27% of amidopyrine, about 0.39 gram per capsule, 24 to 25% of phenacetin or about 0.3 gram per capsule, 7 to 8% of atophan or substances of similar action (about 0.1 gram per capsule), 30% of milk sugar or about 0.369 gram per capsule, 10% of starch of about 0.12 gram per capsule, 0.5% of salt or about 0.0069 gram per capsule, making total weight of capsule of 1.186 gram. Max Zeidler, Colotto Versand.

Criconol—100 sugar-coated pills in glass tubes. Contains whey extract, ovalecithin, vitamins, magnesium, potassium and calcium compounds, phosphates, sulfates, active silica and iron in organic, easily resorptive form. For exhaustion and depression, enervating diseases, under-nourishment, rickets, neuralgia, neurasthenias, also sexual neurasthenias, anorexia, anaemia, chlorosis, convalescence. Christoph & Co., Berlin, Germany.

Cuprofer—Boxes containing 60 or 300 tablets. Organic iron compound. For all types of anaemia, particularly in alimentary anaemia in babies and hypochronic idiopathic anaemia. Acts catalytically in regeneration of blood. Institut fuer angewandte Hygiene G.m.b.H., Hamburg.

DDD Medicament—Yellowish liquid. Contains 2% salicylic acid, 0.05% phenol, 1% methyl salicylate, 1% chloroform, 1% glycerin, 30% alcohol, 65% water. For various diseases. DDD Co. Ltd., London, England.

Deletaer Soap—Easily soluble, brownish soap made in cakes like toilet soap. Contains principally quinosol, yeast, cholesterin, aluminum acetate, which are added to soap with waxes, oatmeal and glycerin. Soap is subjected to ultra-violet light to increase activity of ingredients. Mesothorium, uranium and thorium may also be added. For diseased cells and tissues; for washing infected parts, preferred for treating inflammations of vagina, increased post-menstrual secretion, pruritus vulvae, hyperhidrosis; also as general cleansing and disinfecting agent. Goerlich G.m.b.H., Berlin, Germany.

Dinatolin—Tin boxes containing 50 grams. Contains sodium sulfate, sodium bicarbonate, magnesium dioxide, pulverized magnesium and rhubarb, anaesthesin, bismuth subsalicylate, and 0.5% of extract of belladonna. For dyspepsia, super-acidity, constipation, acute and chronic stomachic catarrh. Dr. Transier Chemisch-pharmazeutische Praeparate, Stuttgart, Germany.

Doloresum—Tablets. Tubes containing 10 and 20 tablets. White. Contain 0.05 gram triturated tincture of aconite, 0.01 gram quinine acetylosalicylate, 0.02 gram dimethylaminophenazone and caffeine, 0.2 gram phenacetin and 0.01 gram saponin. Alleviating and avoiding diseases of all kinds producing pain and fevers, neuralgia, grip and other colds, headaches, menstrual disturbances, pains in wounds, ears and teeth.

Drula Bleichsalbe—Slightly yellowish, perfumed salve, containing 3.95 grams mercury, 0.09 gram sulfur, 8.0 grams bismuth, 1.2 grams nitrogen, 1.1 grams zinc, 0.0002 gram iodine; also waxes and ointment base to total weight of 100 grams. For pimples and various skin infections. Chemisch-pharmazeutische Laboratorium Dr. O. Druckrey, Quedlinburg am Main, Germany.

Drula Transpirationwasser—Clear, colorless, perfumed liquid, containing 60% alcohol, acetic acid, boric acid and menthol. Used as face lotion; for preventing odor of perspiration, disinfecting, removing blackheads. Chemisch-pharmazeutische Laboratorium Dr. O. Druckery.

Genacide—Granules containing 12.75 grams di-ammonium phosphate, 5 grams ammonium chloride and 1.35 gram phosphoric acid and granulated saccharne. In acid therapy, treating alkalosis. Laboratoire Montagu, Paris, France.

Pate Blance—Paste containing 100 grams oxide of zinc, 100 grams talc and 60 grams sweet oil of almonds. Local application in pruritus and erythemia. Hopital Saint Louis, Paris, France.

Carditone—Contains 0.001 gram extract of strophantus, 0.02 gram spartein sulfate, 0.05 gram essence of lily of valley and 0.35 gram excipient; compressed into tablets. Cardiac tonic. Chenal, Paris, France.

Cerebrosthenine—Wafers. Contain 0.05 gram manganese nucleinate, 0.001 gram sodium vanadate, 0.001

gram strychnine sulfate, 0.15 gram calcium glycerinophosphate, 0.10 gram magnesium glycerinophosphate, 0.15 gram iron glycerinophosphate and 0.048 gram calcium carbonate per wafer. Tonic. Dalin, Lyons, France.

Carbostom—Black tablets in tin boxes containing 40 and 80 tablets. Contain charcoal, sulfur, foliae sennae, gum arabic and resilapin. For all digestive troubles, fermentations, flatulence, meteorismus, heartburn, dyspepsia, enteritis, gastralgia, urticaria. Dose one to two tablets after meals. Dr. Laboschin A. G., Berlin N 65, Germany.

Abdocain—Para-aminobenzoyldiethylaminoethanol hydrochloride in crystals and leaflets as well as in solution form. E. Schnell Chemische Fabrik G.m.b.H., Berlin-Hohenschoenhausen, Germany.

Antigenal—Tubes containing 6 and 12 tablets. Contains quinine, boric acid, potassium ortho-oxyquinolinsulfate with the addition of an assisting solvent which increases the solubility of quinine considerably. Contraceptive, used as indicated medically. Curta & Co., G.m.b.H., Berlin-Neukoelln, Germany.

Anuvalin—Black pills. Contain 2.5 grams extract of cascara sagrada, 2.0 gram extract of franguli, 6.0 grams cape aloes, 3.0 grams extract of rhubarb cps., 1.0 gram extract of absinthium, 2.0 gram olive oil soap and sufficient gentian root to give 100 pills. For constipation, obesity, impurities in blood. In round boxes, with screw cap, containing 100 pills. Fabrik Chemisch-pharmazeutische Praeparate Dr. H. Schellenberg, Berlin.

Atampon Ifah—Small boxes containing 3, 6 and 12 tampons. Contains silver nitrate compounded with mixture of chemicals resulting in generation of carbon dioxide gas when tampon is inserted into vagina. For vaginal diseases. Institut fuer angewandte Hygiene G.m.b.H., Hamburg.

Balafarin Pertussis Salve—Blackish-brown salve in tubes and small jars. Contains 2% ichthyol, 4% potassium resinate, 0.1% creolin, 70% simple ointment, 5% balsam Peru and sufficient essential oils to maximum of 20% in all; also some copper acetate. For percutaneous treatment of pertussis, bronchitis, pulmonary infections, grippe; used as an auxiliary medicament for rubbing into skin in addition to oral medicines. Heinrich Behrens (Marien Apotheke), Duisberg, Germany.

Beerinda I—145 to 160 gram packages. Consists of buckthorn berries alone. As reducing tea, purifications of blood, purgative tea. Prophylactic in rheumatism, dropsy, gall stone troubles, etc. Martin Geiger Grosshandlung, Stuttgart.

Beerinda II—Contains only lignum sassafras in packages containing 75 and 95 grams. Nerve stimulant, purifying blood; as diaphoretic; purifying action on respiratory organs. Prophylactic in influenza, grippe, colds, catarrhs of the breathing organs. Same maker.

Kurabo—White tablets in capsules containing starch. Contain 0.1 gram acetanilid, 0.1 gram dimethylaminoantipyrine, 0.05 gram caffeine and 0.25 gram phenacetin per dose. Analgesic and antipyretic. Dose, one tablet, three to four times daily.

Iod-Pumilen—**(Pumilen Iodate)**—Clear brown liquid in bottles holding 15 and 50 grams. Contains pumilen (products of distillation from bornyl acetate and methyl propylphenol and a derivative of metacamphor as well as pinene and limonene) and 2% iodine-potassium iodide solution (0.5% iodine and 1.5% potassium iodide), in glycerin. For chronic nasal catarrhs, also with atrophy of mucuous membrane; also in ozaena, acute and chronic pharnygeal catarrhs; also for inflammation of tonsils. Dose, undiluted for painting nose and throat as well as for moistening tampons for insertion into nose. E. Tosse & Co., Chemisch-Medizinische Praeparate, Hamburg, Germany.

Lenogin—Sugar coated pills. Called first, activated hormone-fat reducing preparation. Light red pills weigh 0.5 gram each. Contains per pill 0.05 gram extract of bladderwrack, 0.05 grams extract of frangula, 0.05 gram extract of aloes, 0.02 gram extract of thyme, 0.02 gram extract of hypophysis gland and 0.21 gram mineral vitamins. For obesity. Dose, one to two pills, two to three times daily. Leanogin Gesellschaft Dr. Richard Weiss & Co., Berlin.

Impetoform—Brown salve in poreclain jars containing 30, 50 and 250 grams. Contains cyclic oxy-acids in combination with hydrogenated hydrocarbons with addition of mercury-amino-chloride in paste-like consistency. For eczemas of head in children (milk scurf), impetigo, tylotic eczemas, keratoses, psoriasis, wet eczemas. L. Geissler Chemisch-Pharmazeutische Laboratorium, Westerholt i. W.

Rectamin Suppositories—Packed in tin foil, containing 1.5 gram zinc oxide, 2.5 grams bismuth oxyiodide, 0.01 gram resorcinol, 0.3 gram perugen (synthetic Peru balsam), 0.3 gram cinquefoil, 0.1 gram extract of belladonna, 0.02 gram phenacetin, 0.1 gram aluminum aceto-atrtrate, 0.5 gram adrenalin, 0.06 gram menthol and 21.00 grams cocoa butter. For haemorrhoides. Same maker.

Rheumarom—Liquid containing bornyl acetate, methyl salicylate, camphor, chloroform, mixed balsams, linmoene; free from alcohol. For rheumatic diseases of all kinds, muscular rheumatism, articular rheumatism, nerve pains, pains caused by colds, lumbago, sciatica, toothache and headache. Otto Lauxmann vormals Dr. Fritz Koch, Muenchen.

Demo—Salve containing camphor, chloral hydrate, chloroform, methyl salicylate, capsicin, oleum sinapis, oil of turpentine, eucalyptus oil, lanolin and petrolatum. H. Frommer Chemisch-pharmazeutische Praeprate, Bonn, Germany.

Thiorubrol—Thick, reddish, liquid smelling slightly of sulfuretted hydrogen. Contains sodium salt of sulfurized and sulfonated fatty acids with approximately 2% active sulfur, colored with phloxin. For making sulfur baths. Wolo A.G., Zurich, Switzerland.

Inhalants

Soon the cold weather will be upon us with its usual demand for products for treatment of colds. This article covers an important group of these preparations.

With the advent of the cold season the attention of the trade is naturally centered on preparations for the relief of common colds. Among such preparations inhalants have played an important role during the last few years. Inhalants, being used for the relief of nasal congestion, consist naturally of antiseptic, pungent and mildly astringent substances dissolved in highly volatile solvents. Among the materials used are: isopropyl alcohol, acetone, ether, chloroform, alcohol, ammonia, menthol, camphor, iodine, thymol, formaldehyde, guaiacol, oil of pine, lavender, eucalyptus, clove, cinnamon, wintergreen, sandalwood, cedar leaf, rosemary, sassafras, peppermint, etc. The art of making an effective preparation consists in creating a combination that will function without irritation to the membranes of the nose and without causing the eyes to water and which at the same time will possess a reasonably pleasant smell. The following typical formulae will give the research chemist something to work on. *Again we wish to emphasize that these are not necessarily finished formulae and will require adjustment as taste and experience dictate.*

NO. 1

Chloroform	10 parts
Formaldehyde	5 "
Ether	6 "
Menthol	3 "
Eucalyptus	3 "
Lavender	4 "
Isopropyl	69 "

Procedure: Dissolve menthol in chloroform, add the oils, ether and solvent. Mix and filter if necessary.

No. 2

Menthol	2 parts
Camphor	3 "
Lavender	6 "
Oil of pine needle	5 "
Eucalyptus	3 "
Rosemary	6 "
Formaldehyde	4 "
Acetone	71 "

Procedure: Mix menthol and camphor, and warm until liquefied. Add the oils and the solvent. Mix and add the formaldehyde.

NO. 3

Thymol	.5 parts
Peppermint	5. "
Pine Needle	3. "
Formaldehyde	5. "
Isopropyl	86.5 "

Procedure: Dissolve thymol in the oils, add solvent and formaldehyde. Mix thoroughly and filter.

NO. 4

Phenol	1 parts
Menthol	1 "
Camphor	.5 "
Thymol	.5 "
Eucalyptus	2 "
Oil clove	2 "
Oil of Sassafras	2 "
Chloroform	8 "
Isopropyl or Acetone	83 "

Procedure: Mix phenol, thymol, menthol and camphor and warm until liquefied. Add the solvents and finally the oils. Mix thoroughly and filter.

NO. 5

Menthol	1 parts
Camphor	1 "
Wintergreen	3 "
Eucalyptus	2 "
Oil of pine	3 "
Formaldehyde	4 "
Iodine (2½ sol.)	1 "
Isopropyl	85 "

Procedure: Mix menthol and camphor and warm until liquefied. Add the wintergreen, pine, formaldehyde, solvent and iodine. Filter.

NO. 6

Phenol	1 parts
Menthol	1 "
Camphor	1 "
Oil of Pine needle	1 "
Sandalwood	1 "
Lavender	3 "
Eucalyptus	2 "
Strong Ammonia Solution	3 "
Alcohol	87 "

Procedure: Mix phenol, menthol and camphor and warm until liquefied. Dissolve the oils in part of isopropyl and add to above. Mix ammonia with rest of isopropyl and add to rest of mixture. Mix and filter.

Note: the formaldehyde solution recommended in the foregoing preparations is 37%. The pungency of any of the preparations can be toned down by the addition of sweeteners or by increasing the quantity of the more fragrant oils in each formula.

Emulsion Flavors

By K. E. Langwill

Emulsion type flavors form a most important group. This article discusses this subject thoroughly, telling of the formation of ingredients of these products.

EMULSION flavors are closely allied to the essential oil flavors previously discussed, in that the essential oils have been dispersed through water and held in suspension by the addition of a protective colloid. The common emulsions contain three essential principles, viz: two mutually immiscible liquids, one in the dispersed phase and the other in the dispersing phase, and an emulsifying or peptizing agent. By dispersed phase is meant that liquid which is subdivided and distributed throughout the emulsion, as oil of lemon or orange. By dispersing phase is meant that one which separates the minute droplets of the dispersed phase and is usually an aqueous solution. The emulsifying agent is generally a substance which is soluble in one liquid but not in the other.

The two general types are the oil-in-water and the water-in-oil emulsion. The oil may be the dispersed phase and the water the dispersing phase as in the former type, or the reverse may be true. An emulsion can be diluted with its dispersing medium as might be expected. Consequently an oil-in-water emulsion will be freely miscible with water, while a water-in-oil emulsion will float on water like a piece of grease and vice versa. The emulsion flavors of essential oils may be taken as an example of the first type.

The very fact that the various aromatic constituents of flavors are insoluble or nearly so in water becomes the fundamental principle which is responsible for the emulsion form of flavors. The flavoring constituents in this form are just as valuable as far as flavoring distribution is concerned as the alcoholic extracts. The first incentive for the development of an emulsion flavor was to avoid the use of ethyl alcohol on account of its price.

It has been shown that the permanency of an emulsion is largely due to the presence of a colloid. The following substances are commonly used as emulsifying agents: proteins (casein, gelatin, albumin, etc.), water-soluble gums and mucilages (arabic, tragacanth and Irish Moss), colloidal carbohydrates (starches and dextrins) and lecithin. It is interesting to note that these substances form colloidal solutions. Colloidal emulsifying agents are efficient for the reason that they form viscous films. Such viscous bodies as sugar solutions and glycerine are not considered as colloids but since they exhibit surface attraction they may be considered as emulsifying agents. They are often of value when used in combination with certain colloids.

The size of the dispersed globules has an important bearing upon the stability of an emulsion too—the smaller the globules, the greater the duration of stability. When an emulsion is prepared by an ordinary shaking or stirring operation until the two phases are mixed intimately, it contains droplets of comparatively large and variable diameters. Superior dispersion may be obtained by the use of a high-speed colloid mill or homogenizer, which gives a much finer and a more uniform dispersed phase than could be attained by simple agitation methods. One of the most satisfactory types of homogenizer is the one in which the emulsion passes through a fine opening in an agate plate and at the same time is subjected to a rubbing or tearing motion under high pressure. Smaller particles present a larger total surface area for adsorption of the peptizing agent, exert less attractive force upon one another and thus promote greater stability. When a mixture of liquids has been agitated sufficiently with a colloidal emulsifying agent, the emulsion should be allowed to stand quietly for about an hour before moving or subjecting it to shocks.

The advantages of emulsion flavors are many. These flavors will not evaporate. In the course of manufacture there is no loss of alcohol and the flavor is usually packed in small collapsible tubes or heavy wall glass bottles. There is practically no breakage using these bottles as compared to ordinary panel bottles. The emulsion flavors are more adopted to shipment than are the alcoholic flavors.

Only the finest grade of gums is suitable for the manufacture of emulsions. Gum arabic is a soluble gum produced in the Sudan. It is nearly odorless, has an insipid taste and dissolves slowly in about twice its weight of water, forming a thick transparent mucilage which is insoluble in alcohol. Gum tragacanth is

(Continued on page 176)

Rejuvenating Creams

Current interest in vitamins, hormones and the lipoids, cholesterin and lecithin, makes this discussion of their use in tissue or rejuvenating creams of more timely interest.

THE faith of ageing women and the hopes of the industry are apparently pinned on tissue or rejunevating creams. Much of the medical opposition to cosmetics is based on unsupported claims for tissue creams; and yet most of the worthwhile research in cosmetics has centered about this important product. Ordinary cosmetics like face powder, lotions, etc. are intended to minimize or to conceal superficial defects while tissue cream aims to correct the causes of these defects. Because of this and also because of the highly technical nature of the biochemical research devoted to this product, it has been virtually removed from the field of empirical cosmetics and is assuming the status of an ethical pharmaceutical. The work of a number of investigators has almost established the fact of cutaneous absorption without which tissue creams could not exert a permanent effect and would degenerate into mere lubricants whose value would lie mainly in the amount of massaging devoted to the skin at the time of application. But there are signs that the medical profession is beginning to accept the therapeutic value of tissue creams for the discussion in regard to absorption now centers largely about the manner in which regenerative substances are absorbed instead of whether they are absorbed or not. Those who favor the medical point of view contend that vigorous massaging plus the use of heat causes the cream to penetrate deeply into the hair follicles, sebaceous and sweat glands and the ducts connecting them through whose walls (which are not composed of the same keratinous material as the epidermis but partake more of the nature of the dermis, which, it is conceded, will absorb a great number of substances) absorption takes place. This school stoutly contends that no absorption is possible *through* the horny outer layer of the skin. The other school contends that absorption takes place not only through the walls of the glands and connecting ducts but also through the epidermis itself.

From a practical point of view it makes but little difference whether absorption takes place through the epidermis or through natural openings in the skin so long as the desired results are achieved. We think the merits of *properly* compounded tissue cream so well established that no dermatologist would dispute its beneficial effects. However, one thing that research and the consequent publicity it has received has done is to cause a number of inexperienced manufacturers, lacking adequate technical training and facilities, to experiment with materials which are likely to prove extremely dangerous and may cause stringent regulatory measures if they are persisted in. For instance there has been considerable ballyhoo about hormones, which, though they undoubtedly have value and may *in time prove to be one of the most important constituents* of rejuvenating creams, are so prone to decomposition with consequent formation of cadaveric *acid and other dangerous putrefaction products, that* they should be used only by houses with adequate technical facilities. Everyone familiar with the manufacture of glandular products fully realizes how difficult it is to prevent decomposition of such products even *during the process of manufacture, not to mention the* difficulties encountered by incautious use and lack of knowledge of effective preservatives.

Since there is still considerable controversy about the nature of tissue creams and as it is the intention of *every cosmetic manufacturer to see that his product* will achieve the desired result in the shortest possible time, it is recommended that tissue cream be sold not *only with detailed instructions as to vigorous massage* but also directions as to the benefits of heat. Heat *draws blood to the surface of the skin and undoubtedly* promotes absorption. Whether the heat is applied by means of hot towels after massage or by electric heating *pads is of little moment (one firm sells with its tissue* cream a little instrument resembling a curling iron but *with a flat platen on the end which is held close to the* face for a certain number of minutes after massage) so long as blood is drawn to the surface.

With heat and vigorous massage to promote absorption, it remains then to consider the ingredients from *which effective tissue creams can be made. The more* important materials are: lanolin cholesterin, lecithin, hormones and vitamins, extracts, beeswax, turtle, snake, lizard, olive, sesame, and almond oils, stearic

and oleic acids, cocoa butter, lard, cetyl alcohol, the stearic esters, triethanolamine preservatives, especially p-hydroxybenzoic acid. As there is not yet enough known about the value of hormonal and vitamin substances we shall omit discussion of them. It is extremely likely that the use of the latter is due more to advertising than to any therapeutic value. In view of the high susceptibility of vitamins to oxidation, the use of irradiated materials or concentrated extracts appears to be of extremely doubtful value. Although the value of cholesterin has been amply substantiated it appears likely that its real value is out of proportion to claims made for it especially in regard to its ability to absorb water. It is interesting to note that from the time of the discovery of its therapeutic properties and in spite of attempts to impair its standing, lanolin has held first place among tissue cream ingredients.

The following formulae will illustrate the usual ingredients and manufacturing procedure involved in making suitable tissue creams. They are offered as typical example to guide research workers and it is strongly recommended that they be adequately tested before use.

TISSUE CREAM WITH CHOLESTERIN

Lanolin	325 grams
Cocoa Butter, odorless	200 "
Beeswax, white	300 "
Spermaceti	55 "
Oleic Acid	50 "
Stearic Acid	200 "
Sesame Oil (with preservative)	800 "
Cholesterin (pure)	65 "
Borax	50 "
Water	800 "
Sodium Benzoate	8 "

Procedure: Melt the waxes, fats, and oil. Add the cholesterin. Make a hot solution of the borax, sodium benzoate and water and stir into the melted fats after the cholesterin has dissolved. Mix thoroughly and perfume to suit.

TISSUE CREAM WITH LECITHIN AND CHOLESTERIN

Lanolin, anhydrous	220 grams
Cocoa Butter, odorless	100 "
Beeswax, white	200 "
Stearic Acid T. P.	100 "
Olive Oil (with preservative)	1000 "
Lecithin	22 "
Cholesterin	44 "
Water	600 "
Parahydroxybenzoic Acid	4 "
Sodium Benzoate	10 "

Procedure: Melt fats, waxes and oils, add cholesterin and lecithin. Stir in a solution (hot) of the water and sodium benzoate. Dissolve the parahydroxybenzoic acid in a small quantity of alcohol. Mix, perfume, and color.

TISSUE CREAM WITH LECITHIN

Lanolin, anhydrous	22 grams
Spermaceti	22 "
Beeswax, white	40 "
Cocoa Butter, odorless	28 "
Almond Oil (with preservative)	390 "
Lecithin	50 "
Borax	5 "
Sodium Benzoate	5 "
Para-hydroxybenzoic Acid	2 "
Water	220 "

Procedure as before.

TISSUE CREAM WITH CHOLESTEROL, LECITHIN AND TURTLE OIL

Beeswax, white	220 grams
Stearic Acid	100 "
Cocoa Butter, odorless	200 "
Lanolin	200 "
Turtle Oil	1000 "
Almond Oil (with preservative)	1000 "
Cholesterin	58 "
Lecithin	120 "
Water	800 "
Para-hydroxybenzoic Acid	8 "
Sodium Benzoate	12 "
Borax	120 "

Proceed as above.

TISSUE CREAM (SOFT) WITH CHOLESTERIN BASE

Absorption base	30 grams
Lanolin	5 "
Water	55 "
Beeswax, white	10 "

Procedure: Melt the wax and lanolin, add the base and stir in the water (warm).

(Note: Consistency in the foregoing formulas can be adjusted by changing the wax content to suit.)

Industry's Books

(*Continued from page 114*)

Labor Relations Under the Recovery Act, by Ordway Tead and Henry C. Metcalf, 251 pages, McGraw-Hill Book Co., New York, $2.00 net.

This book aims to supply practical guidance to all who are interested in methods of organized dealing with employees in industries and companies which come under the provisions of the National Industrial Recovery Act. Of primary interest to employers, executives of trade associations and personnel managers. Also contains the Act reproduced in full text.

The Therapeutic Agents of the Quinoline Group, by W. F. von Oettingen, 310 pages, Chemical Catalog Co., New York.

This book is planned for the use of the research chemist and the pharmacologist as a guide through the itlerature of the quinoline derivatives. This includes such outstanding compounds as quinine, the hydrocupreines, the acridine dyes, plasmoquine, cinchophen and yatren. This discusses the relation between their chemical constitution and pharmacologic action. One of the American Chemical Society Monograph Series.

Analyzing the New Drug Act

The Department of Agriculture recently analyzed the new Food and Drug Act. This analysis is much more searching and points out dangers in the bill which the administration has ignored.

THE Department of Agriculture recently distributed among members of Congress and released to the Press what purports to be a comprehensive analysis of the Food and Drug Administration's bill for the revision of the Food and Drugs Act in one column with a similar analysis of the present law in an adjoining column.

The Department's analysis of the new bill is remarkable not only for incorrect and inadequate representations of features embodied in the bill but also for the omission of features which, in the opinion of qualified persons who have studied the bill, make the bill very objectionable.

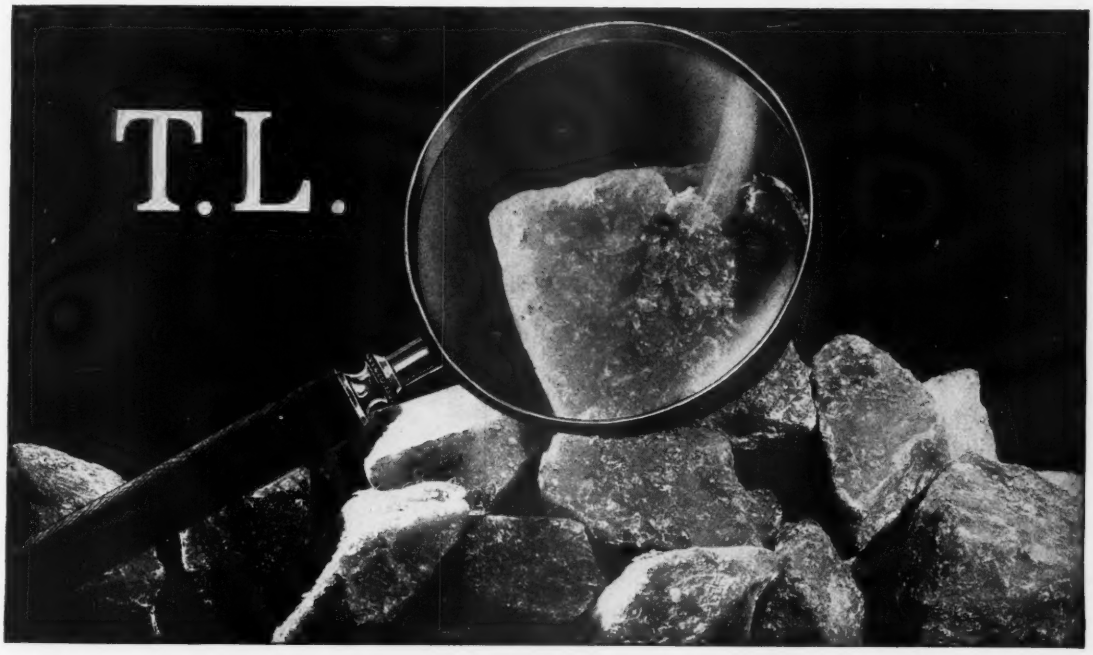
Inasmuch as the Food and Drug Administration hopes to have the bill enacted by the next session of Congress and has obtained wide publicity for its analysis a supplemental analysis of the bill presenting features omitted from the Department's analysis is printed below in the right-hand column (with the Department's analysis in the left-hand column for reference). The parentheses and underscoring are not in the bill.

Department's Analysis of New Food and Drugs Bill	**Supplemental Analysis of New Food and Drugs Bill**
Sec. 1. Title.	
Sec. 2. Definition of food, drug, cosmetic, advertisement, and other terms used in bill.	Sec. 2. (a) Defines the term "food" to include confectioneries and *without excepting medicated foods*, so that under the authority conferred in Sec. 10 the Food and Drug Administration could wipe out the business of companies manufacturing medicated or laxative candies and gums promptly and without even going into court to do it—just by holding a hearing and issuing a regulation forbidding the addition of the particular drugs to any gum or candy. Definitions of food, drug and cosmetic should be changed, and medicines put up in the form of candy or gum and all products for which medicinal or therapeutic claims are made should be classed as drugs so as to be subject to all regulations for drug products. Should but does not contain definition of "filler" (See Sec. 2 (b) (2). In definitions should distinguish between "drug" (a simple substance) and "drug product" or "drug preparation," properly defining both terms (See Sec. 4 (d).
Sec. 3. (a) Food defined as adulterated if dangerous to health; if added poisonous substances present in excess of tolerances prescribed by Secretary; if filthy or decomposed; if prepared under unsanitary conditions; if from diseased animals; or if packed in poisonous containers.	Sec. 3. (a) (1). Does not define food as adulterated if it *is* dangerous to health; provides that a food shall be deemed to be adulterated "if it is *or may be* dangerous to health," which means may *possibly* be dangerous—not may *reasonably* be dangerous; should contain the words "may reasonably be dangerous to health."
	(a) (2). Provides that any "food" (See Sec. 2 (a) is adulterated if it contains any added poisonous or deleterious substance (such as phenolphthalein or aspirin in gum or candy) prohibited or in excess of limits of tolerances prescribed; dovetails with authority in Sec. 10 to wipe out businesses in medicated candies, gums, and the like (See Sec. 2, (a).
(b) Food adulterated if valuable constituent removed;	(b) (1). Provides that food is adulterated "if any valuable constituent has been in whole or in part abstracted therefrom"; in the manufacture of white flour the wheat embryo, which is vitamin bearing and therefore a valuable constituent of wheat flour, is "abstracted" along with other valuable constituents and similar "abstractions" occur in the processing of other foods.

Department's Analysis	Supplemental Analysis
if another substance substituted partly or entirely for the article; if damage or inferiority is concealed; or if any substance has been mixed with it to increase its bulk or weight or to reduce its quality or to create a deceptive appearance.	(b) (2). Provides food is adulterated "if any substance has been substituted wholly or in part" or (4) "if any substance has been mixed or packed therewith so as to increase (not *for the purpose* of increasing, but *with the effect* of increasing) its bulk or weight, *or* reduce its quality of (or?) strength, *or* create a deceptive appearance"; this language is so broad and loose that it may be held to outlaw all added substances which may be held to be "fillers" even though they may be added for a useful purpose and may be of value and not at all harmful, such as bone-meal to furnish needed calcium and phosphorus in a stock food or a substance reasonably added to table salt to prevent it from lumping or caking. Should simply forbid use of "fillers" and (in Sec. 2) properly define what a filler is.
(c) Confectionary defined as adulterated if it contains alcohol, resinous glazes, or non-nutritive substances.	
(d) Prohibits use of uncertified coal tar colors in foods.	
Sec. 4. (a) A drug defined as adulterated if under the conditions of use prescribed in the labeling it may be dangerous to health.	Sec. 4. (a) Provides that a drug is adulterated "if it is *or may be* dangerous to health under the condition of use prescribed in the labeling thereof"; this reference to the directions for use of a drug product would save the businesses in medicated candies, gums, and the like if they were not classed as foods (See Sec. 2 (a); like Sec. 3 (a) (1), it does not contain the expression "may *reasonably* be dangerous to health."
(b) A drug defined as adulterated if its name is the same as, or simulates, a pharmacopoeial or National Formulary name, and it fails to meet all the requirements of the pharmacopoeial or National Formulary name, and it fails to meet all the requirements of the pharmacopoeia or formulary. Where the tests provided by the pharmacopoeia or formulary for determining the standard of strength, quality or purity are insufficient, the Secretary is authorized to prescribe improved tests. Drugs exempted from this provision if labeled to show wherein their strength, quality and purity differ from pharmacopoeial or formulary requirements.	
(c) Drugs not recognized in pharmacopoeia or formulary must meet the standards under which they are sold.	
(d) Drugs defined as adulterated if any substance has been mixed with them to reduce their quality or strength, or, if any substance has been substituted wholly or in part for them.	(d) Analagous to Sec. 3 (b) 2 and 4. The term "drug" used in this provision is not limited to purported *simple* drugs, chemicals or botanicals and the like but embraces all commercial preparations for which therapeutic claims are made. Sec. 2 should define simple "drugs" and also "drug products" or "drug preparations" and this provision should be applicable to only "drugs" as so defined.
Sec. 5. (a) Cosmetics defined as adulterated if injurious to the user.	Sec. 5. (a) Provides that a cosmetic is adulterated "if it is *or may be* injurious to the user" (not "dangerous to health" like Sec. 3 (a) (1) (foods) and Sec. 4 (a) (drugs) under the conditions of use prescribed in the labeling thereof (like Sec. 4 (a), or under such conditions of use as are customary or usual"; like those other two sections, it does not contain such expression as "may *reasonably* be" injurious to the user.
(b) Cosmetics defined as adulterated if they contain poisonous substances in excess of the tolerances prescribed by the Secretary.	
Sec. 6. (a) Food, drugs and cosmetics defined as misbranded if labeling is false or misleading in any particular.	Sec. 6. (a) Does not provide that food, drugs and cosmetics are misbranded *only* if labeling is false or misleading; provides that such products are misbranded if their labeling is in any particular false *or* if by either ambiguity or implication it creates *even any misleading impression* regarding the products; omits all such words as "fraudulently" and "intentionally" so that honest belief upon adequate investigation, of the truth of a statement or implication, or failure to foresee a possible "impression" that might be drawn, would be no defense in a criminal prosecution brought to have the manufacturer heavily fined and sentenced to the penitentiary.
(b) Food, drugs and cosmetics in package form must bear labels which show the name and address of the manufacturer or	

(*Continued on page 148*)

CLOSE INSPECTION



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Non-Greasy Body Oil

Non-greasy and non-soiling body oil is made by mixing fatty oils with volatile or essential oils. Quantity of essential oil must be large enough to produce substantial decrease in viscosity of fatty oils, the proportion used being greater than that required for perfuming the oils. Vegetable oils and mineral oil, may be used. This process has been patented. Ten per cent. of lavender oil added to white oil reduces the viscosity of the mixture to half that of the original white oil, 20% to one-quarter, 30% to one-seventh, the relation between the quantity of oil added and the viscosity of the mixture being parabolic. About 20% of an essential oil is generally sufficient for all purposes. Benzyl benzoate may also be used for this purpose. At first the mixture of fatty oils and essential oil is cloudy, but the cloudiness disappears when the mixture is allowed to stand. If the essential oil used in unadulterated, there is no cloudiness. For example, 10 to 30 parts of a volatile oil, such as lavender oil, are added to 70 to 90 parts of white oil. The volatile oil may be energized by irradiation with mercury-quartz light at a distance of 60 cm. for five minutes, the oil being a very thin film.

Sunburn Aids

Certain sunburn preparations are used to aid in producing a tan. They also protect the skin at the same time from being excessively burnt due to the presence of animal or vegetable oil. Oils generally used for this purpose include peanut, olive, sesame, almond and apricot kernel; also waxes in admixture with fats and oils. The creams may be greaseless, moderately greasy and strongly greasy. These sunburn preparations may also be made in the form of cold creams. In this instance the cream may consist of 14% beeswax, 9% spermaceti, 10% stearin, 44.5% mineral oil, 2.5% borax, 19% distilled water and 1% perfume bouquet. Greaseless preparations may contain 50% specially prepared wax product or stearate base and 50% distilled water, perfumed as desired. Moderately greasy preparations are made with specially prepared cream bases of non-greasy type, generally used in about 14% mixed with 5% white petrolatum (m. p. 40 to 50° C), 10% almond oil, apricot kernel or peach kernel oil, 5% mineral oil, specific gravity 0.870 to 0.875, 5% C. P. glycerin, 5% lanolin, 56% distilled water and sufficient perfume. Greasy cream may be made from lanolin of odorless grade, glycerin water and white oil. Green colored sunburn oils may be made from suitable mixtures of olive oil, kernel oils, such as peach, grape and apricot, sesame oil, peanut oil, laurel oil and oil-soluble chlorophyll. Olive oil used should be as free from acid as possible.

Chocolate Coated Pills

Chocolate often becomes gray or whitish and pill coating unseemly, but quality of chocolate is not impaired. Due to cocoa butter content of chocolate when pills are kept in warm place. Lower cocoa butter content of chocolate, less tendency of chocolate to become gray. Surest way to overcome this is to coat pills with chocolate lacquer. Such lacquer, not possessing bad taste, contains equal parts of tincture of benzoin and alcohol, and 0.2% vanillin. Lacquers made with turpentine, shellac or peru balsam possess serious disadvantages which do not permit their use.

Tablets Unaffected by Stomach Juices

Tablets made in usual manner are coated with keratin film which is not attacked by stomach juices, such film dissolving first in intestines. Tablets are first coated with thin film of organic wax in coconut oil solution, then covered with graphite powder and wetted with keratin solution often enough to give uniform dense coating. According to contents of tablet, keratin solution contains acetic acid or ammonia. Solution, containing acetic acid, is obtained by digesting about 7 parts keratin in moderately warm 100% acetic acid and ammonia-containing solution is obtained by dissolving 7 parts keratin in mixture of 50 parts 0.96 sp. gr. ammonia and 50 parts of alcohol. Skill is required in coating tablets with keratin solution, especially to obtain lustrous effect. Thin layer of coconut oil is applied when tablets contain water-soluble salts. After chilling, tablets are coated with keratin or with gelatin mass and hardened by drying in formic acid. Gelatin solution contains 20 parts white gelatin, 10 parts gum arabic mucilage and 150 parts water. Another suitable coating for pills and tablets, to be dissolved first in juices of intestines, contains 0.6 part benzonaphthol, 0.9 part tannigen (acetyl-tannic acid), 1.5 part phenyl salicylate, 27 parts 90% alcohol and 10 parts ether.

Binder for Pills

Certain difficulties have been encountered in making pills containing quinine hydrochloride, phenolbarbital, arsenious acid, digitalis leaves and valerianated menthol. Particular trouble is experienced with the latter. This is overcome by following method. Three parts benzoin are melted with valerianated menthol, and then other ingredients are mixed together and added. Binder consists of 3 parts kaolin, and 3 parts glycerin ointment, or 5 parts magnesium carbonate, 0.3 parts gum tragacanth and 10 drops glycerin.

Salves in Pencil Form

To make salves in pencil form, the base must be carefully melted and agitated, while medicinal agents should be added before mass congeals. Base may be composed of 10 parts coconut oil, 30 parts white beeswax, 22 parts lard and 35 parts lanolin. Another suitable base contains 35 parts yellow beeswax and 65 parts lanolin. Third composition contains 78 parts paraffin, 24 parts spermaceti, 26 parts coconut oil, 31 parts lard and 3 parts olive oil. Pulverized medicament is mixed with base or finely distributed throughout melted mass.

Interesting Lotions

Quinine lotion for hair is made from 10 liters boiling water, 500 grams gray cinchona bark, 2,000 grams quillaia bark, 15 to 25 cc. perfume, 25 grams water, 5 grams borax and 25 to 100 grams quillaia infusion. The ten liters of water are brought to boiling in 20 liter bottle and then quillaia bark and cinchona bark are added and cooked for 5 to 10 minutes. Bottle or vessel is covered during boiling. Perfume, glycerin and borax are mixed together in mortar and quillaia bark infusion is added with agitation until syrupy liquid is obtained. When contents of vessel are cool, liquid is decanted and filtered. Perfume composition is then added and mixture filtered again.

Foaming pilocarpin lotion, useful in dandruff, is made by mixing following ingredients:—25 parts ammonia, 300 parts rose water, 200 parts quillaia bark infusion, 10 parts anthrasol, 5 parts pilocarpine hydrochloride, 2.5 parts borax, 50 parts glycerin and 500 parts alcohol, 96% strength.

Saponin shampoo consists of 100 parts saponin, 9,000 parts distilled water, 1,000 parts alcohol and 10 to 25 parts perfume in one formula, and in another 250 to 500 parts saponin, 3,000 parts alcohol, 1,500 parts rose water, 500 parts witch hazel infusion, 4,000 parts orange flower water and 10 to 25 parts perfume. Saponin in both cases is first dissolved in distilled water. Then a part of this solution is added to a large mortar containing essential oils, selected as desired. Small proportion of alcohol, about 200 to 250 parts, is mixed thoroughly with perfume. Remainder of alcohol is added to aqueous solution of saponin. Then all solutions are mixed together. Care should

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be taken in carrying out process with agitator so as to avoid foaming. Product is colored with tincture of safranin and filtered. In spite of fact that alcohol is present in this lotion in large proportion, it lathers very well and is perfectly clear.

Formaldehyde lotion is made with 7,500 parts alcohol, 2,500 parts rose water, 50 parts 40% formaldehyde, 50 parts perfume and 50 parts glycerin. Perfume is first mixed with glycerin. Alcohol is separately mixed with rose water and then formaldehyde solution is added and perfume-glycerin solution is added. After two solutions have been thoroughly agitated, mixture is allowed to stand for 90 hours and filtered through asbestos. In another formula 50 parts perfume composition are mixed with 50 parts glycerin and 25 parts sodium bicarbonate. Another mixture is made of 10,000 parts water and 25 parts formaldehyde and then two mixtures are added together with strong agitation. Product is allowed to stand 90 hours and filtered.

Lotion for hand and arms, particularly for use in decolte dress, contains 2,500 parts witch hazel extract, 5,000 parts rose water, 1,000 parts alcohol, 1,800 parts glycerin, 100 parts tallow, 100 parts magnesium carbonate, 50 parts magnesium stearate and 1,000 parts antipyrine. First, antipyrine is dissolved in witch hazel extract and rose water. Then glycerin is added. Perfume used is allowed to be absorbed by magnesium carbonate, magnesium stearate and tallow. Then alcohol is added. This suspension is strongly shaken for two days. Milk is filtered through coarse filter paper. The two preparations are united with vigorous stirring and decanted. This preparation is applied with cotton. Skin is rubbed and preparation is allowed to dry. Skin remains white the entire evening. Advantage of this preparation over ordinary liquid powder is that a dull white effect is obtained, lasting 4 to 6 hours.

Cooling Ointments

Investigation has shown that effectiveness of cooling ointments is measured by quantity of emulsified water contained in them. When cream used is of water-in-oil emulsion type of highest degree of saturation, there is no hindrance of evaporation of perspiration from the skin and the desired cooling action is obtained. Such ointments retain their protective action on skin as long as they contain water and when all water has been evaporated it becomes necessary to apply more ointment to skin.

Borax in Face Lotions

It was found that a face lotion became turbid when it contained borax. Contributory cause was use of too low concentration of alcohol. Borax may decompose the essential oil mixture under these conditions and form product insoluble in alcohol resulting in turbidity. Omission of borax from such face lotions is claimed to solve difficulty.

Hair Lotion Deposits

Sometimes hair lotions, used for removal of dandruff from scalp, apparently increases shedding of scales. This is due generally to use of too high proportion of salicylic acid in lotion. Acid precipitates crystals in hair which simulate dandruff scales. Remedy is to use no more than 10 to 20 parts of salicylic acid to 1,000 parts of lotion.

Acetylsalicylic Acid Tablets

Aside from other properties acetylsalicylic acid tablets must have good appearance and must dissolve rapidly in the stomach. Such tablets are made with base of 240 parts pulverized arrow-root starch and 240 parts heavy magnesium oxide. Base is well mixed and screened. Then it is moistened with solution of coconut oil, 10 parts in about 400 parts ether, and moistened mass screened again. Powder is spread on paper and ether evaporates. Acetylsalicylic acid, 2000 parts, are added and mixture carefully mixed to perfect homogeneity. Then it is mixed with acetone as required, about 30 parts to 250 parts powder. After drying and heating for 2 hours at 50° C., 2530 parts of the granulated mass are mixed with 30 parts pulverized agar-agar, 60 parts arrow-root starch and 80 parts pulverized talc. When unit of weight used is gram, 4000 tablets can be prepared from final mixture, each tablet weighing 0.7 gram and containing 0.5 gram of acetylsalicylic acid. To prevent powder from tablets from penetrating into lower die on tablet-making machine, latter is covered with cotton threads impregnated with paraffin oil.

Compounding Menthol

One difficulty encountered in compounding preparations containing menthol is that no matter how small proportion of menthol is used nor how well it is mixed with other components, the menthol will soon separate, rising to surface. Such preparations are much wanting in effectiveness. Hence formation of emulsions is considered essential in preparing menthol compositions. Nevertheless difficulties are also encountered in making emulsions. If gum arabic is used as emulsifying agent, menthol emulsion remains firmly adherent to walls of containing vessel. A way out has been proposed in use of small quantity of saponin, about 0.1 gram, or about 4 grams of tincture of quillaia bark. These are added to emulsifying agent, and menthol, which has previously been mixed with other components, is carefully added.

Colloidal Silica for Cough Mixtures

Secret of obtaining good results in compounding these remedies is to make colloidal silica solution in glycerin. A very fine dispersion, possessing great stability, is thus obtained. Glycerin emulsion contains approximately 5% of silica. Consistency of emulsion is correct for cough syrup compounding. Emulsion is used for this purpose by mixing with 50% ordinary sugar syrup and usual medicinal and aromaticizing components.

Compact Powders

Natural talc often contains as much as 5% impurities soluble in hydro chloric acid. Such talc is unsuitable for making compact powders because impurities irritate skin. Talc should first be purified with hydrochloric acid. Refined talc should not contain more than 0.1% impurities, soluble in acid. In moderate quantities it is useful ingredient of these powders as it possesses great binding power, but when used in too large proportions it makes compact too hard. Titanium dioxide may be used in place of zinc oxide and less is required to obtain same opacity. Gums, resins and other binders should be used only in smallest possible proportions. Resins are better avoided, it is claimed. A good binder consists of 10 grams gum tragacanth, 25 cc. tincture of balsam tolu, 5 cc. tincture of storax and 1,000 cc. distilled water. Tinctures and gum are first shaken together and then water is added, shaken and allowed to stand for 24 hours and filtered through muslin. Dye lakes may be used in coloring compacts provided objectionable ingredients are absent. Carmine, 5% being sufficient for deep red, is best used in form of saturated, ammoniacal solution. After solution is made, ammonia is driven out by gentle heating.

Greaseless Quinosol Cream

Quinosol reacts only with certain metallic salts, that is salts of iron, barium, lead and mercury. Alkali salts of weak acids, such as carbonates, precipitate oxyquinolin, without affecting activity of quinosol to any appreciable degree. Hence a good stearate cream may be made with quinosol. However this cream must be neutral and hence it must not contain potash in excess. If stearate cream of this type, which has been prepared with soft or distilled water, is mixed with lanolin and beeswax, then it is stabilized by presence of these substances. Cream will be stable when following directions are followed out and when cream is filled into tubes made of non-corrodable metal.

Thus, 180 grams stearin are melted in 6 to 7 liter vessel on water bath with 400 grams of water. Melted mass is allowed to remain on water bath and is mixed with boiling solution of 18 grams potassium carbonate in 400 grams water and stirred constantly with wood stirring rod, while carbonate solution is added in small portions. This is continued until uniform mass is obtained. Excess alkali in product must be neutralized with a little stearin.

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Acetaldimethylphenyl-acetic
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Hydratropique Aldehyde
Heliotropine
Ylang Ylang Bourbon
Essence Styrax
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Then 300 grams C. P. glycerin, 40 grams lanolin and 10 grams beeswax are added and finally 1 to 2% (20 to 40 grams) perfume bouquet usually used in perfuming soap. When homogeneous product is obtained, vessel is removed from water bath and cooled to 55° C. while being constantly stirred. Then solution of 12 grams quinosol in 800 grams water, heated to same temperature, is added in portions. Mixture is agitated while being cooled to room temperature. It is permitted to stand for 1 to 2 days, then worked up again and finally filled into tubes or jars.

Disinfectants in Dentifrices

Value of disinfectant in dentifrice is problematical. Only a few disinfectant substances can be used. All disinfectants are inactive in too dilute solutions. In concentrated form they destroy all microorganisms in mouth which is undesirable. Furthermore, under such conditions, mucous membrane and other organs of oral cavity are injured. Phenol is good disinfectant but cannot be safely used in sufficient proportion to endow toothpaste with antiseptic properties. Formaldehyde is objectionable on account of its odor and its strong irritating action on mucous membrane. Benzoic acid and salicylic acid are strong antiseptics, but their disadvantage is that they are only slightly soluble in water. Addition of borax, ammonium citrate and other chemicals increases solubility of salicylic acid in water. Tooth pastes made with benzoic acid or other acids should not contain soap. Saponin should be used if lathering tooth paste is required. Inasmuch as salicylic acid irritates mucous membrane of mouth, it must be very carefully and accurately proportioned in the tooth paste. Boric acid is a mild and harmless antiseptic with an astringent action. Phenyl salicylate (salol) is effective but too powerful and requires great care in proportioning, from 1 to 1.5% being used as maximum. Oxyquinolin sulfate mixed with potassium sulfate is a strong, non-irritating and non-poisonous antiseptic. The yellow powder has a saffron odor and is easily soluble in water and alcohol. It is used in proportion of 0.1 to 0.5% and more.

Thymol is a very good mouth antiseptic. Its taste is, however, objectionable to some people and its antiseptic power is considerably reduced by presence of soap. It is also very difficultly soluble in water (about 1 in 1,000). Newer investigations on this product have revealed, it is claimed, an unexpected poisonous character. Chlorothymol is also used. It forms colorless crystals, has phenol coefficient of 110 in soap solution, 343 in aqueous solution and is used in proportion of 0.1 to 0.2%. Its odor is like thymol and it is difficultly soluble in water (4 in 10,000). Chlorocarvacrol acts in similar manner. Both chlorocarvacrol and chlorothymol are particularly active in acid medium. Chloramin or the sodium salt of paratoluolsulfochloroamine is a strong antiseptic. It forms white, slightly odorous crystals, which are easily soluble in water. Its antiseptic action is caused by the release of hypochlorous acid, but the concentration of the same is not sufficient to produce the usual skin-irritating action of hypochlorites. Chloramine T (paratoluoldichlorosulfamide and tochlorin (sodium salt of 1-toluoldichlorosulfamide) are also usable for same purpose. Magnesium hypochlorite is very strong antiseptic of slight chlorine odor. It is white, slightly odorous powder, almost insoluble in water and perfectly stable. It is particularly useful in making special tooth pastes for correcting bad breath. The proportion used is 0.1 to 0.5%.

A useful product for making mouth washes is pyridium or a condensation product of beta- and gamma-phenylazo-alpha-alpha-diaminopyridine hydrochloride. It forms brick-red powder, difficultly soluble in water, more easily soluble in alcohol, glycerin and other organic solvents. It is relatively non-poisonous. It has property of concentrating in mucous membrane of mouth and thus prolonging its action. Quinine salts, such as sulfate, hydro chloride and salicylate particularly, are effective mouth antiseptics, but their bitter taste is disadvantage. Eucupin or isoamyl-hydrocupreine is also useful for this purpose. It is a white powder, almost insoluble in water. On the other hand eucupin hydrochloride dissolves readily in water (1 in 15) as well as in alcohol. It is extremely active in destroying strepto cocci and pneumococci in a concentration of 1 in 1.5 million.

Various Nail Preparations

Nail bleach consists of 3% borax, 7% glycerin (28°Be.), 90% perfume water, 2.4% preservative. Bleach of greater potency is made with 65% hydrogen peroxide (3%), 34% distilled water, 1% alcoholic solution of ammonia, 0.5% terpeneless pineneedle oil. Liquor for removing nicotine stains contains 90% hydrogen peroxide (3%), 10% ammonia solution (density 0.96), or bisulfite liquor or sulfur dioxide may be used. Polishing powder contains 40% pumice powder, 15% talc and 45% stannous oxide, or 65% titanium dioxide, 10% talc and 25% pulverized pumice. Nail enamel consists of 7% white carnauba wax, 7% Japan wax, 2.5% spermaceti, 80.5% white petrolatum, 0.25% turpentine, 0.5% acetic acid (80°Be), one per cent. ethyl alcohol (96 to 98%), 0.25% alcanin and one per cent. perfume. Nail paste contains 99% white petrolatum and 0.5 to one per cent. of non-poisonous, fat-soluble, scarlet red, or 15% white beeswax, 10% white ceresin, 30% sweet oil of almonds, 35% tartaric acid, 4% citric acid and 6% alum. Liquid cream for after-treating nails contains one per cent. white beeswax, 4% tegin, 10% sweet oil of almonds or apricot kernel oil, 5% white petrolatum, 80% distilled water and one per cent. preservative.

Gum Inflammation Preparations

Following preparations are claimed highly effective in treating various inflammations of gums and roots of teeth. First contains one part monochlorophenol, one part camphor, 0.5 part menthol, 6 parts acetone and 2 parts distilled water. In another formula one part parachlorophenol, 0.1 part menthol, 0.9 part camphor, 6 parts acetone and 3 parts distilled water. In another mixture 12 parts camphor are triturated with 10 parts menthol to complete liquefaction. Liquid is mixed with 35 parts parachlorophenol. Furthermore, 5 parts menthol, 1 part paramonochlorophenol and 85 parts camphor are liquefied by trituration. Mixture is used as required by dilution with equal quantity of 60% alcohol, or it may be used for caustic purposes, for example in treating alveolar pyorrhoea, in undiluted state.

Benzoin Lotion

Infusions, containing this substance, are made with witch hazel extract, rose water and like. Products are milky. They are stabilized by addition of quillaia bark infusion. Thus 45 parts 20% benzoin infusion are mixed with 50 parts 20% quillaia bark infusion and heated on water bath to 40° C. Entire mass is poured into dropping funnel. Under funnel is placed bottle containing 25 parts highly concentrated rose water, heated to same temperature. Benzoin infusion is allowed to drop into rose water. From time to time, cock of dropping funnel is closed and milky mixture shaken strongly. Final milky product may be perfumed with violet, rose and like. Part of rose water may be substituted by witch hazel extract. A tolu balsam lotion is prepared in entirely similar manner.

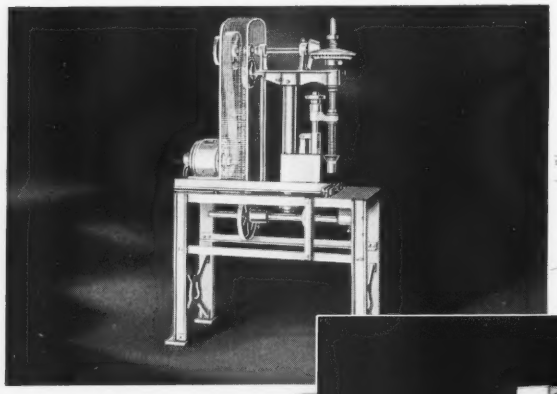
Eye Salves

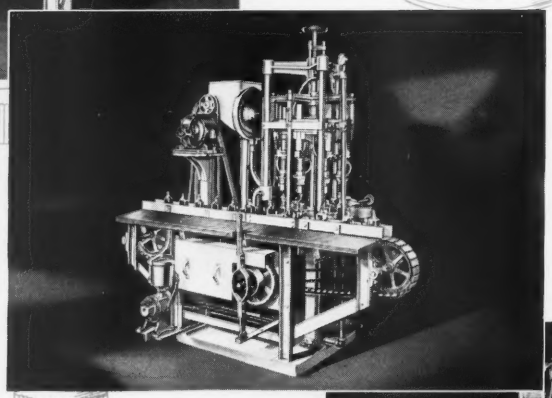
Mercury oxide, red or yellow, is used mixed with wool grease, petrolatum or butter salve base. Special prepared salve bases may also be used. In one composition 1 to 3% yellow oxide of mercury (freshly precipitated) is mixed with 10% of anhydrous wool grease, 8% of distilled water, 2% of olive oil and white petrolatum to make 100%. In another composition one to 2.5% of collargol is mixed with 15% of distilled water, 12 parts anhydrous wool grease and white petrolatum to make 100%. Another formula contains 0.001 gram mercuric chloride, 0.05 gram boric acid, 5 drops olive oil and 5 grams white petrolatum. Also 5 parts red oxide of mercury are mixed with 3 parts opium and 100 parts fresh sweet butter; also one part red oxide of mercury is mixed with 29 parts white beeswax and 70 parts fresh sweet butter.

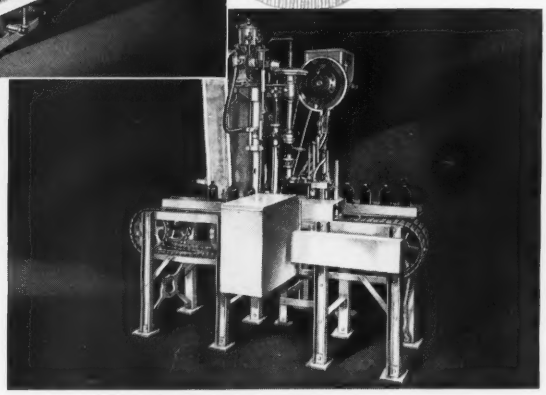
PACKAGING DRUGS AND COSMETICS

A SECTION OF "THE DRUG AND COSMETIC INDUSTRY"

SCHAEDLE







Since 1918

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All U. S. Cappers are built to perform your individual tasks in the most efficient and economical manner possible over a long period of time. Whether you use composition caps or metal, with continuous thread, duplex, or Amerseal finish, U. S. Cappers are the logical choice for your plant.

All U. S. Cappers incorporate in their design the adjustable friction tension feature. Available in hand tightening or capping units to fully automatic machines. U. S. Cappers were the first to apply molded or Bakelite caps, handling them automatically without marring or breaking at high speed. If yours is a capping problem, there is a U. S. Machine especially adapted to your needs.

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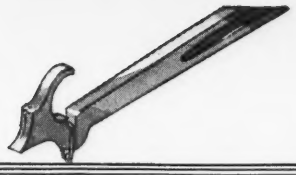
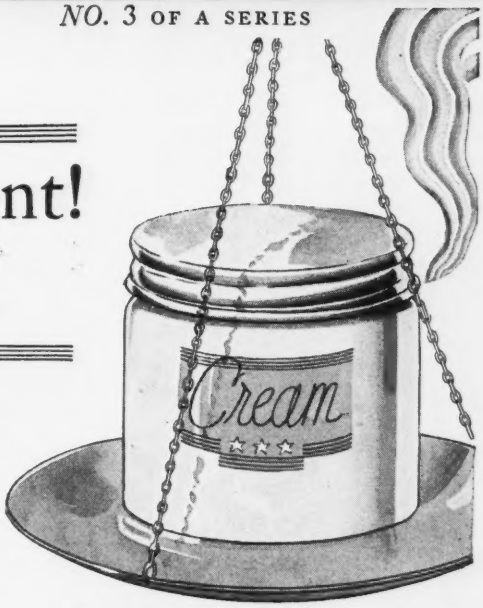
NO. 3 OF A SERIES



67½ times more efficient!

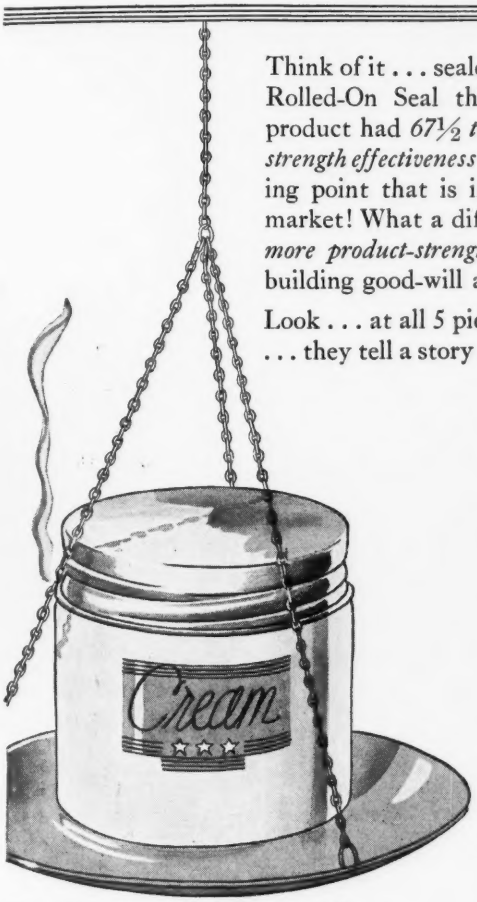
That's what this Test proved Alseco Rolled-On Seals to be



Test Jar Number 1 sealed with an old-fashioned 1-Piece Screw Cap lost . . . during 60-day test period . . . 2700 milligrams.

Think of it . . . sealed under an Alseco Rolled-On Seal this famous beauty product had *67½ times more product-strength effectiveness.* Man! what a talking point that is in an overcrowded market! What a difference *67½ times more product-strength* would make in building good-will among users.

Look . . . at all 5 pictures on this page . . . they tell a story you should act on.



Test Jar Number 2 sealed with an Alseco Rolled-On Seal lost . . . during the 60-day test period . . . only 40 milligrams.

"Jamming" against leakers and breathers isn't the way out either . . . these pictures tell why

STRONG GRIP

Even with aid of knives, pliers, openers, etc., women having a strong grip can open only 4 out of every 5 containers that are sealed with old-fashioned 1-piece Screw-On Caps. But, they can open 100% of all Alseco Rolled-On Seals.

AVERAGE GRIP

Using every method they know and can think of, women with the average grip can open only 3 out of every 5 containers that are sealed with 1-piece Screw-On Caps. But, they can open 100% of all Alseco Rolled-On Seals.

WEAK GRIP

Using every possible aid they know of, women having a weak grip can open only 2 out of every 5 containers that are sealed with old-fashioned Screw-On Caps. But, they can open 4 out of 5 Alseco Rolled-On Seals.

Let us show you the Laboratory Test sheets on this and three other famous beauty products. Show you, too, a separate 60-page report* of consumer reaction to old-fashioned 1-Piece Screw Caps that must be jimmied off.

Let our Market Research Committee help on your sealing problems. Use the coupon. We offer a complete Sealing Service . . . for all types of products and packing. Automatic and Hand-Operated Machines... Alseco Goldy, Rolled-On, Screw Cap and Specialty Seals.

ALSECO SEALS *and Sealing Machines*

*From the Consumer-Home and Laboratory Test data of Pittsburgh Testing Laboratory, as reported in Food Industries, March, April, May, 1933.

ALSECO SEALS
TRADE MARK
REG. U. S. PAT. OFF.

Market Research Committee
Aluminum Seal Company, New Kensington, Pa.
I would like to talk with you about Alseco Seals and Sealing Machines.

Name.....

Street and Number.....

Name of Company.....

Position.....

City.....State.....

MUCH MORE THAN *Price*

OF COURSE you want economy in the packaging of your product. But economy in closures isn't all a question of price. ◆ Closures that are difficult to apply—closures that do not seal perfectly—liners that deteriorate in use—closures that are difficult for consumers to remove—closures that detract from the appearance of your package—can prove costly, no matter what you pay for them. ◆ Here at C. C. & S. we have carefully built up a 7 Point Service to help you in obtaining the right closure for your product. It is a service that considers much more than price. For only by providing closures that are right from every angle—closures that fulfill every requirement throughout the life of your particular package—can we give you closures that are most economical for you. ◆ Why not find out the real meaning of 7 Point Closure Service and the true economy it offers in the sealing of your product? A phone call, wire or letter will bring you full particulars.

➤ EFFECTIVE SEALING ➤ SUITABILITY FOR PRODUCT ➤ EASY APPLICATION ➤ EASY REMOVAL ➤ BEAUTIFUL DECORATIONS ➤ DEPENDABLE SUPPLY ➤ NATION WIDE SERVICE

TO OBTAIN THE RIGHT CLOSURE FOR YOUR PRODUCT

CROWN CORK & SEAL CO. Baltimore Md.

WORLD'S LARGEST MAKERS OF CLOSURES FOR GLASS CONTAINERS

It's all in the **CAP**

A NEW DUREZ STAND

that stands-up and speaks-out

"TIME OUT FOR *Teaberry*" ☆

WHO or when or where or what started the old American custom of chewing gum we don't much know or care. But we do know this: from the moment a dealer places his Teaberry wares on the counter, in this new Durez stand, sales start on the up-and-up!

The reason's simple, as any good merchandising man will point out. *People buy what people see!* Hide your product under the counter, tuck it back on the shelf, and customers just don't care. But put what you sell where people can see it, arrange it neatly, make it easy to look at, easy to pick up, and the sale is part sold! That's the fundamental psychology back of all Durez display stands. (Notice the neat trick, here, of making a coin box part of the tray!)

This modern, up-to-the-minute stand, and many another, is doing a job of selling that other manufacturers may well envy. Durez stands are colorful. You can obtain a variety of effects that even an Art Director will like. They take any size or shape you decide upon. Name, trade-mark, slogan and seal can be molded in clearly, distinctly.

Durez closures, as well as Durez packages, are known wherever drugs and pharmaceuticals are sold. Literally millions of these caps go into the stores of the nation within a year. Light, tough, they screw down on the bottle tightly, do not bind, release instantly. Leakage is prevented. Resistant to acids, moisture and perspiration, Durez closures are not affected under normal conditions by the contents of any container. And they stay clean.

Wherever your market, whatever you sell, investigate Durez. General Plastics, Inc., 1108 Walck Road, N. Tonawanda, N. Y. Also New York, Chicago, San Francisco, Los Angeles.

★ When three are on and two are out and the weakest man in the line-up surprises himself and everybody else by arching a high one far, far, far out over center's head—"Time out for Teaberry!"

When the day's boiling, so hot you have to jump up and down to keep from sizzling on the pavement, and your mouth is musty and dry and nothing tastes good—"Time out for Teaberry!"

When you're fagged and dizzy from a long day's grind, and the lights and the air and the noise are hurting your head—"Time out for Teaberry!"

DUREZ

Reg. U. S. Pat. Off.

The Modern Molding Compound

Save time and money in packing

Evening in Paris cosmetic set, with ten-ply KIMPAK *wrapped in tissue and placed at top of package to prevent movement and breakage.*

Use KIMPAK *Crepe Wadding. Makes your product look better —gives greater protection against breakage*

IT IS the new idea in protective packing materials! Doing away with sawdust, linters and low-grade packing materials — yet with surprising economies.

Many hundreds of products are now protected with KIMPAK, in addition to liquids and fragile articles; cosmetics, vanities, wood and metal products with fine finishes that deserve KIMPAK'S super care in transit. KIMPAK plays a part in the success of low cost merchandise, too.

KIMPAK is especially valuable for packing liquids because it absorbs 16 times its weight in moisture and conforms to Postal regulations. It is amazingly low in cost and because of its bulk and lightness gives greater protection. Customers are doubly pleased with its clean, soft appearance.

It comes in rolls, sheets or pads, in various thicknesses — plain or backed with Kraft (smooth, creped or waxed), jute liner, or tissue, according to your requirements. Mail coupon for more details.

Illustration shows bottle of Sanford Writing Fluid ready to be wrapped in KIMPAK *and placed in carton for mail shipment.*

Showing use of KIMPAK *to protect sample bottle of Aqua Velva demonstrating the mailing strength of a National Metal Edge Box.*

KIMPAK *protects mail samples against breakage. Illustration shows sample bottle of Pepsodent Antiseptic which was wrapped in* KIMPAK *and placed in package for mailing.*

Kimpak
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES
CREPE WADDING

KIMBERLY-CLARK CORP., Manufacturers, Neenah, Wis.
Address nearest sales offices at
8 S. Michigan Ave., Chicago 122 E. 42nd St., New York City
510 W. Sixth St., Los Angeles, Calif.

Our product is.....
Send samples and prices.

Company .....

Attention of .....

Address DCI-8

Merchandising Face Powder

BRANDS have come and brands have gone but powder remains the most stable product in the entire gamut of cosmetics. Although total sales of all kinds of cream and ointments are greater than that of powder, there is no *single* cosmetic product whose annual sales are anywhere nearly as great. But the fluction in sales of *brands* is extreme. One can look back through the years and think of many brands which once were household names but now are not heard of. Some of them still gather dust on the druggist's shelves but no longer reckon as factors in powder production.

There must be a reason—possibly several—for this decline and fall of once well established brands. No one, so far as we know, has ever attempted scientifically to anaylyze the causes for sudden shifts of popular favor. At all events if the causes have been studied they are not reflected in merchandising technique because leading brands are still being sold in the same old way. And everyone in the trade knows that some of them are slipping despite desperate efforts to keep off the toboggan.

We think that the causes of swift decline go deeper than mere advertising and merchandizing. Most of them are inherent in the product itself. Hence it is the purpose of this paper to try to discover some of the causes which make for ultimate success or failure.

There are certain important factors which have an important bearing on the continued use of one brand face powder by any woman. The first, and in our

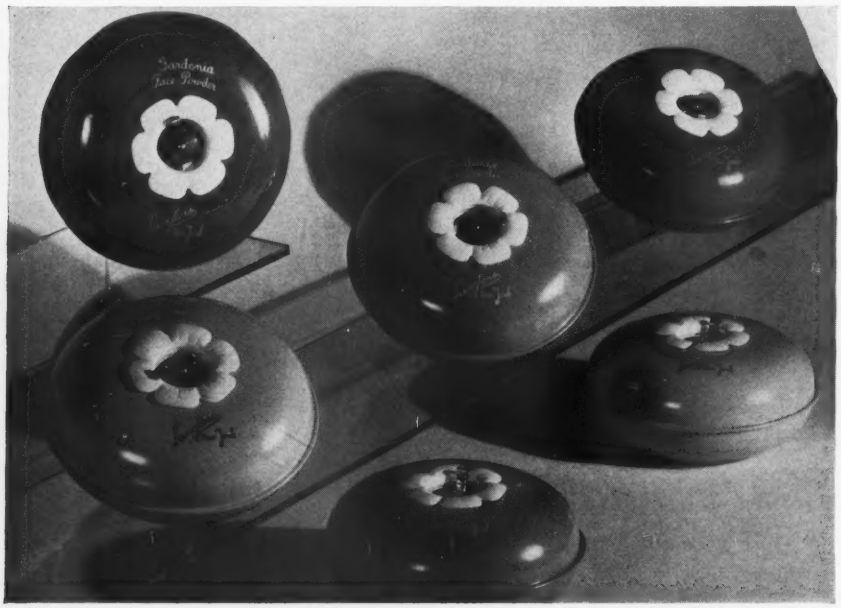
opinion, the most important, is adapting the weight of powder to the type for skin on which it is to be used. There are four clearly defined types of skin dry, slightly oily, oily and normal. Now it is a cardinal principle, well established by research, that no one type of powder is suitable for all types of skin. Yet that is exactly how most of it is sold. Although a few of the more important companies have placed on the market different weights of powder, suited to the four types of skin, not more than two or three have attempted to educate its clientele into buying powder by *weight*, that is to say opacity or covering power.

As this publication has often pointed out, a powder suited to a dry skin cannot be used on an oily skin and any attempt to bluff the customer into believing it can must ultimately result in failure. She may buy the first and even the second time because she likes the perfume or the package, but she will not become a *permanent* customer because the powder will not suit her skin condition. It will not look right on her face. The worst of it is she will not know the exact reason why, and from then on she becomes a knocker. And, as any advertising man can tell you, one knocker can cancel the praise of ten boosters.

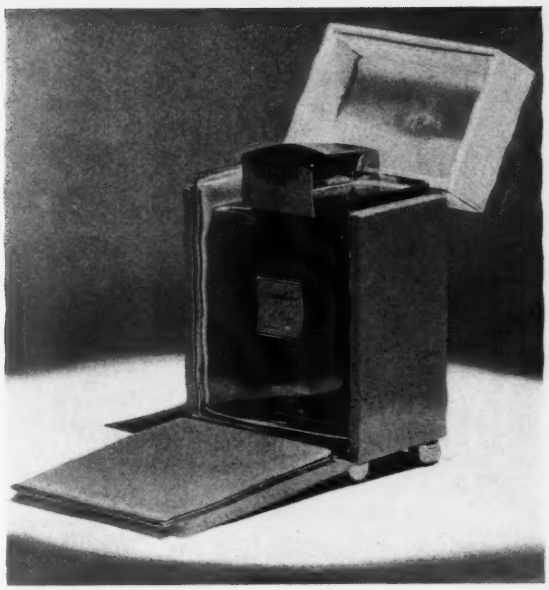
As we have stated only a few houses sell the same kind of powder in different weights, each of which clearly describing the kind of skin for which it is peculiarly suited. Obviously this is the most scientific method. But tempermental buyers and demonstrators often object to carrying a double stock of the same brand or take the trouble to sell each kind properly. Some houses follow the practice of putting out two or more brands each of which is suited to a particular type of skin. But none has yet planned merchandising, so that one brand would facilitate the other by telling the prospective customer, that if her skin condition is other than that described on the package, she should use one of the other designated brands. This practice, while it meets the objection of buyers who would rather carry two different brands than to carry the same amount of stock in one brand of two different weights, is unfortunately not immune to suspicion because of the practice of some firms who sell the same powder, with the exception of perfume, under different brand names, often getting a premium for one brand because of a fancier box.

Next in importance in keeping trade, and possibly first in getting it, is perfume. It is not an easy matter to get an odor that will suit every woman—perhaps it is altogether impossible. Why, therefore, do most manufacturers, whose all-inclusive advertising indicates that they wish to sell their powder for every type of skin and all kinds of women, sell their powder in only one odor? It is axiomatic that no woman will make a first purchase of a powder whose odor she dislikes. Emphatically it is odor that makes the first sale. But Coty proved that you can do more business by giving women a choice of odors than you can by giving them one, take-it-or-leave-it odor.

Next comes the package. Undoubtedly the package helps to make first sales. But it takes an exceptionally good powder to overcome the effects of a bad package. Many, if not most, of the paper powder boxes on the market sift, even before they are purchased. No paper package can be resealed tightly after the drum has been broken. Some are likely to mess up the boudoir table drawer and practically all leak badly when knocked about in a treveling case. Besides this there are the vital questions of preventing absorption of odor by the paper, preventing off-notes due to reaction with sizing and with the adhesives with which the drums are fastened in; and finally, the preservation of the full odor value even after the package has been opened. It is a very common complaint among women that their



An unusual form of package used by United Drug Company as a means of effectively merchandising their face powder.



The delicate perfumes of "Springtime in Paris" and "Evening in Paris" have been packaged in attractive de luxe flacons. A square blue bottle with square polished brass top, wrapped in cellulose and tied with a gold cord fits into a satin lined dropped front box resting on four round gold feet. In the case of the "Springtime in Paris" the colors are pink and blue; of "Evening in Paris," blue and silver.

favorite powder loses its odor very shortly after it has been opened. It would seem, therefore, that in addition to providing a box whose beauty will help make sales, it is even more important to provide one that will preserve the odor at full value and will be capable of tight resealing.

So then the factors upon which a sound advertising and merchandising program can be built are as follows:

First: the powder should come in two or more weights so that women with different skin conditions can be suited. This can be done by using one brand name and designating the different weights, indicating also the type of skin for which each is suited and why. Or the same result can be accomplished by selling two or more brands, each designed to suit a particular type of skin. But in this case each brand should facilitate the other by describing the type of skin for which it is best suited and recommending the other brands for different type of skin.

Second: The experience of Coty and other leading manufacturers proves the desirability of putting out the same brand of powder in different odors. All lines should include a floral type, an intermediate type and a distinctly spicy or oriental type. Observation has shown that the Latins, Orientals and people inhabiting the warmer climates show a distinct preference for the heavier odors. The lighter races seem to lean toward floral types, while the intermediate type seems to appeal especially to younger women. Some manufacturers believe that the best way to do this is to suit the odor to the color on the theory that the darker skinned people who seem to prefer the heavier odors will select the darker shades. In this way it is possible to have a variety of odors without forcing dealers to carry larger stocks than they would ordinarily. In connection with dealers it is well to mention in passing that no successful business was ever built up by permitting the department store or chain store buyer to run it or to dictate its policies. The buyer's interest is in keeping the stocks of any one item low. And this is sound business both for the buyer and the manufacturer provided that the stock carried is sufficiently varied to meet all demands. Demonstrators, paid on a commission basis, often prove a stumbling block. Many of them intent on making first sales will not take the trouble to suit the customers requirements exactly. They rebel at having to handle too large a stock.

Almost as important as variety of perfumes is to keep them up to date. Manufacturers seem to have the utmost reluctance to change the odor of an established brand even after sales have begun to decline. But odors wane in popular favor, no matter how excellent they are, and it seems the better part of merchandising to change the odor when it becomes evident that the odor no longer enjoys the favor it once had. Such a change can be effected without dislocating sales altogether, by testing the odor in a given territory. If sales respond in that territory the odor change can gradually be extended until a complete change has been effected.

Third: There should be an adequate range of perfectly blended colors. In spite of fads and fancies this number probably does not exceed six, certainly not more than seven. Rachel, dark rachel, ochre, naturelle, peach, flesh, appear to be the most popular shades—the same shade however often appears with a dozen different names. In passing it may be desirable to emphasize that colors always should be matched *exactly*. Very few—even of leading brands—ever are. While no woman is expert enough to notice a slight variation in shade from one box to another, the effect on her make up becomes evident to her and she gradually becomes

Peach Bloom was the name which Yardley created for a particular shade of powder.

Pond's packaged their face powder in a glass jar, a completely new innovation.

dissatisfied. Result: a lost customer. It takes a little more trouble in manufacture to match shades exactly but it can and should be done. Colors like perfumes suffer style changes and the alert manufacturer will keep abreast of the times. Now-adays it is every girls desire to acquire as speedily as possible a coat of outdoor tan. This means that rachel, ochre, and peach shades now occupy the leading place in color preference. Ten years ago the ladies went in for lilly white skins and pink cheeks and they avoided the sun like a pestilence. In those days the leading shades were the light pinks and naturelle.

Fourth: Much more study should be devoted to packaging. The powder box should preserve odor at full value. It should be easy to open. It should provide a means of resealing. It should be as attractive as art can make it. Powder packages should also have some inherent value quite apart from their function as containers. The powder box is a boudoir package and should look the part.

With the proper weights of powder for different types of skin, with a range of exquisite perfumes, with an adequate variety of delicate shades and with an attractive and soundly constructed package, the powder manufacturer has not only laid the foundation or reasonably quick success but also a *permanent* success.

Having laid a sound foundation, however, does not obviate the need for advertising and other merchandising effort. The readiness with which the public will abandon established brands and experiment with newcomers is attested by the extraordinarily rapid success of Lady Esther. The appeal to common sense in the "bite test" and the simple "starch test" struck home with the result, that in a few short months, Lady Esther became, if not the leading brand, certainly among the Big Three. It is our belief that if powder manufacturers had provided sounder foundations under their powder business by making it possible for any woman to find powder that suits her, such a rapid success would not be possible.

Coty built up its enormous powder business during the days when women were learning how to use cosmetics and unquestionably the provision of a variety of odors and an adequate range of colors have played a vital part in keeping Coty in the van for a longer period than any other brand ever enjoyed.

Bourjeois with Evening in Paris and Springtime in Paris is making powder history by ingenious merchandizing. Bourjeois provides a variety of *brands* of different weights, a variety of odors and a variety of colors. Bourjeois' recent combination powder box containing powder lipstick and a vial of perfume was a smashing hit.

But it still remains for *one* manufacturer to do the whole job so thoroughly that women of every type can be suited with some variety of his powder in regard to weight, odor, color and package. Its a big job. It is too big a job for those manufacturers to undertake whose attitude may be inferred from their efforts to establish a permanent business by reaching those women who can use his powder by a process of elimination. This is an expensive process. A vast number of repeat sales are lost because of dissatisfied customers. *It is a method of selling which depends upon unrelenting advertising and selling effort, for once the advertising is relaxed sales drop precipitately.*

Mennen Skin Bracer, a new product of the Mennen Company, is packaged in modern fashion although following the Mennen tradition which product is easily recognizable as a Mennen product.

On some of their prescription chemicals Merck & Company are now using plastic caps, adding to the attractiveness of these products as they stand on the shelves in the prescription department of the modern drug store. Photo courtesy General Plastics Co.

Pinaud is offering a new Royal Lavender and a new Royal Eau de Cologne packaged in modern cylindrical bottles with flush plastic caps.

Barene, a new product for removing nicotine stains from the hands, is packaged in true modern style appealing as it does to the modern woman.

Oyster-X is a new product from Blue Point, L. I., containing the beneficial elements and vitamins of raw oysters. It is attractively packaged in shades of green.

Easy Tweeze, a lotion to remove pain when eyebrows are plucked, and to avoid redness, is packaged in the attractive sparkling pressed glass bottles.

Raybel, a liquefying cold cream is a somewhat different package due to its label of metallic green with red and black decorations. Caps are of black metal.

Actual Size
One Dram Bottle
No. 343

Stopper No. "GM" Stopper No. 500 Stopper No. 1104

JEWEL-LIKE BRILLIANCE

New, gem-like bottles of unusual beauty. Cut-glass effect. Upper illustration shows dispensing type bottle, with large neck for easy filling. Molded caps, or glass stoppers in clear, frosted, black, or a variety of colors.

Lower illustration shows our latest style bottle for a standard packaged line. Variety of glass stoppers.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE, MD.

NEW YORK OFFICE: 500 FIFTH AVE., Room 1427
Telephone: CHickering 4-0592

CHICAGO OFFICE: 1502 MERCHANDISE MART
Telephone: WHitehall 4326

Costume jewelry is "in again," with a highly original line of Costume Lipsticks and Rouges, created by Bourjois. These are available in six colors to match or contrast with dress or accessories.

The lipstick is available in two sizes. The larger is round, with slow swivel action, and retails at $1.10, while the smaller is hexagonal, with slide action, and is to sell at the quite surprising price of 55c.

A feature of the rouge is the interchangeable covers, which make it simple to offer the customer choice of case color regardless of the shade of rouge she desires.

In the larger lipstick the same convenience is obtained by removable refills. They are separately enclosed in transparent capsules, allowing their shade to be seen at a glance.

Bonne Bell liquid preparations are offered in cylindrical bottles with straight-sided plastic caps, and transparent labels.

DON'T SEND Bottle Tops out *Naked!*

At small cost you can dress them up stylishly with Cel-O-Seal Caps.

THE finishing touch to the well-designed package is a Cel-O-Seal Cap or Band! Colorful, it harmonizes gayly with your bottle and label . . . gives a new, attractive silhouette to the whole package. Cel-O-Seal Caps and Bands can be used over any type of closure—corks, caps of all kinds, crowns, jar covers, etc.

Cel-O-Seal *protects* your product, too! Loss of strength through evaporation is eliminated, for closures covered with Cel-O-Seal can't come loose. Inquisitive fingers cannot tamper with your package.

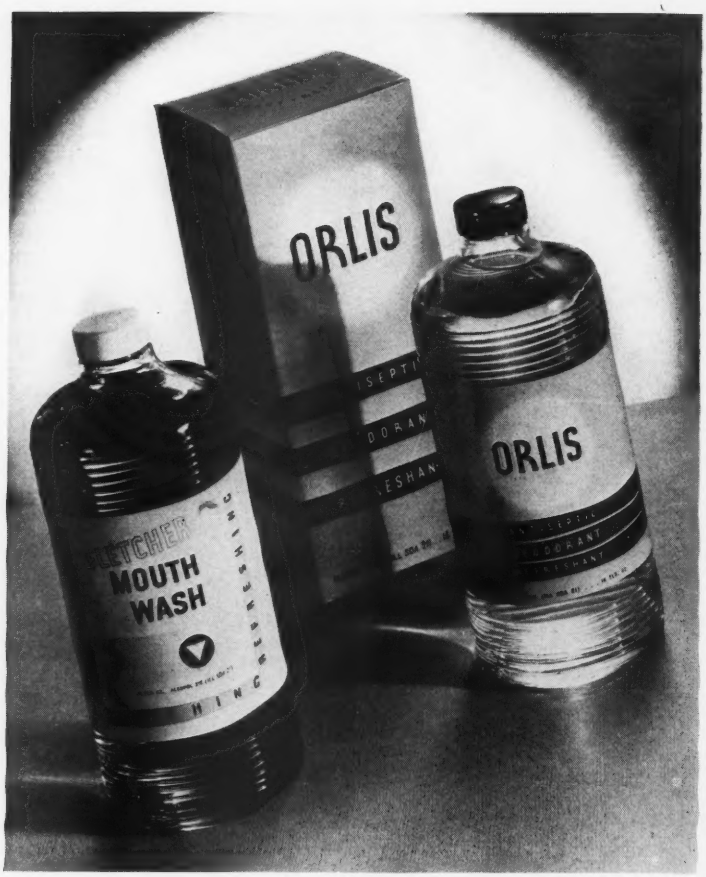
No machinery is needed to apply Cel-O-Seal Caps or Bands. They are supplied moist and are easily slipped over the regular closure by hand. In drying, they shrink tightly over the neck of the bottle. Breaking the cap or band is the only way to remove them. Cel-O-Seal Caps and Bands are available in a full range of colors and in gold and metallic finishes.

How would your products look with a cap or band on top? It's easy to find out. Send us a few of your packages—we'll dress them up, and return them to you with prices. This places you under no obligation. Just address Armstrong Cork & Insulation Company, Closure Division, 913 Arch Street, Lancaster, Penna.

Armstrong's Closures

Consider, also, these other closures in the complete Armstrong Line.

The Walgreen mouth washes—Orlis and Fletcher—are packaged in a manner that impresses one that they must be modern and up-to-the-minute from a scientific viewpoint as well as from a packaging viewpoint. Photo, courtesy "The Phoenix Flame."



Heetfield-Tillou

Perstick, the original stick deodorant, has *now changed to a plastic container.* Photo courtesy General Plastics Co.

Jiffy-Lax is a new type of product in the laxative line. It is a jelly which is claimed to have instant effect. It is attractively packaged in green, black and silver.

GUN POWER

AND ANCHOR AMERSEALS

Should these big naval guns ever be called upon to roar in earnest, split seconds may decide the day. Salvo must follow salvo as fast as gun crews can load. In these big rifles breech-blocks are swung shut and locked in place by the interrupted thread or lug principle . . . a positive, sure, speedy method. Time is too precious to think of screwing the breech-blocks home, as one would a nut on a bolt. • That's why the Anchor Amerseal, likewise operating on a lug principle, is not only efficient, forming a tight uniform seal, but also is easy and speedy to manipulate. Just as the fate of a nation may depend on speed in operating *protective* guns, so may the fate of a sale depend on the speed and ease with which the *protective* closure may be applied and removed. Anchor Amerseals give you a big advantage, that you cannot afford to lightly forego.

Anchor Cap & Closure Corporation

Long Island City, N. Y. Toronto, Canada

Branches in all Principal Cities

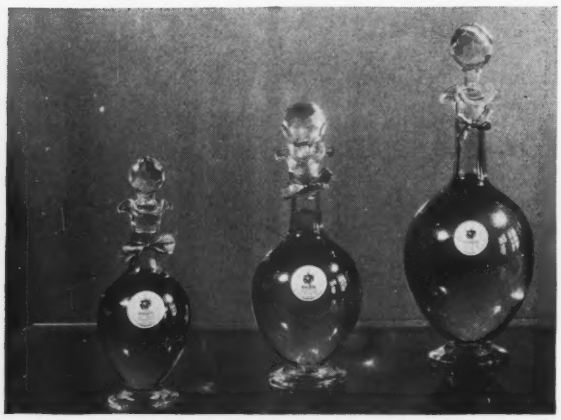
ANCHOR AMERSEALS SEAT SECURELY—COME OFF READILY

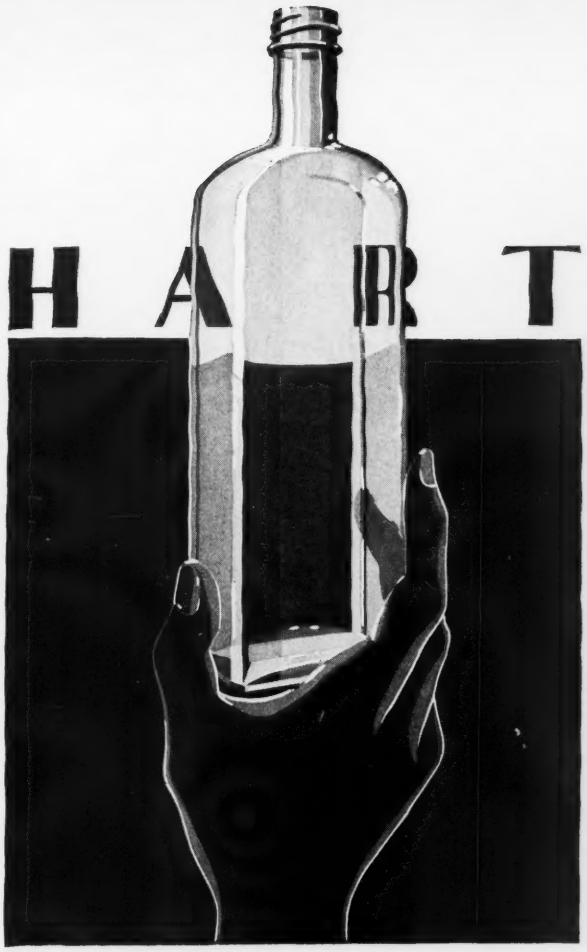
The Bonne Bell creams are packaged in opal jars with brushed brass caps which give the containers a most desirable note of appeal. Photo courtesy Armstrong Cork & Insulation Co.

The Evenglo line of nail preparations is quite complete and attractively packaged with plastic caps.

"Lavender," a delicate toilet water by Mitcham Lavender is a delicate toilet water contained in lip decanters of nine, sixteen and thirty-five ounce capacity.

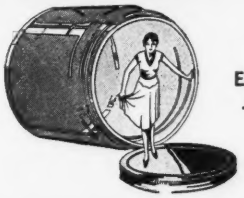
Elizabeth Arden's new "Sun-Pruf" cream, is a sunburn preventative. In a very hot sun several applications are recommended for effective protection. It is packaged in a pink and black lined tube similar to her new preparation for the legs.





HART BOTTLES HELP TO LIFT YOUR PRODUCT ABOVE THE AVERAGE!

CRYSTAL CLEAR BEAUTY



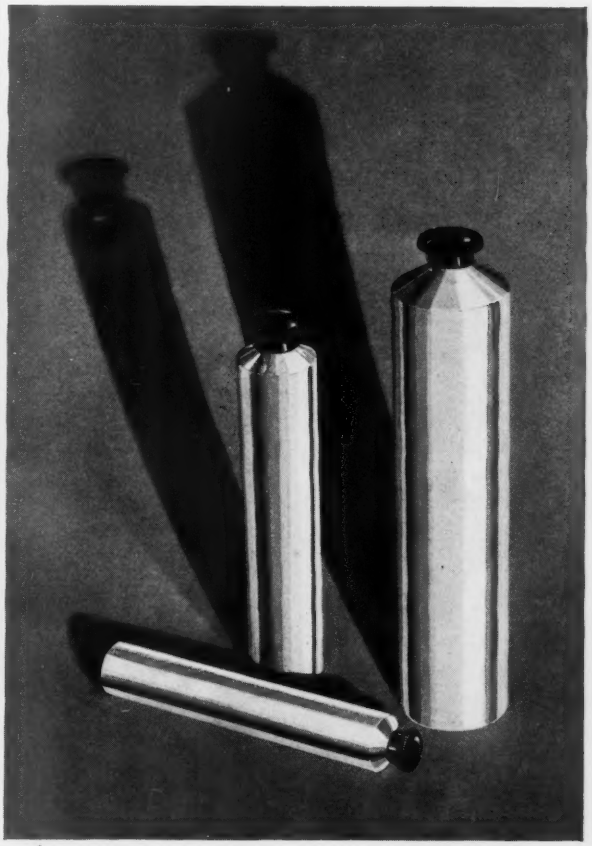
IN EVERY JAR!

All of the effort and care necessary for the manufacture of a quality product can be ruined by low quality glass containers, or containers that vary in quality. High quality is standard with Hart Bottles and Jars. Gleaming Crystal Clear beauty, accuracy and dependable quality make them the finest and most economical containers you can buy. Write today for samples and prices.

HART GLASS MFG. CO. ● 504 E. Center St., Dunkirk, Ind.

HART
BOTTLES & JARS

CHARACTER . . . IN TUBES



WE offer you complete service in the creating and designing of decorated collapsible tubes.

We will also gladly assist you in determining upon the best sizes and styles of tubes for merchandising your product—the most appropriate closure or cap—and any other factors involved in the use of tubes as containers.

NATIONAL COLLAPSIBLE TUBE COMPANY

Providence - - Rhode Island

New York Office—341 Madison Avenue
Telephone MUrray Hill 2-1626

"Fragrance," a sophisticated odor with a sweet undertone is the latest addition to Yardley & Co., Ltd.'s perfumes. It is packaged in five different size bottles from one-quarter ounce purse size to six ounce. The larger bottles with gold mushroom shaped stoppers are fitted into black plastic bases. The two smaller sizes have similar shaped black stoppers.

A face powder in six shades—Rachel I, Medium, and Deep, Natural, Sun Tan, and English Peach—complements the perfume. The boxes of both perfume and powder have a modern design of leaves and flowers in pastel shades and a gold and silver base.

Runkel's Perfumed Cocoa Butter is packaged in an attractive silver and black folding carton.

Ogilvie Sisters are offering a new Pine Soapless Shampoo packaged in the typical Ogilvie style.

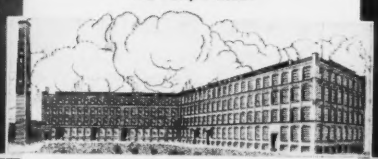
The lavender bath salts of Mitcham Lavender distributed in this country by Groville Sales, are packaged in three size bottles, one, two and three pounds, and three pounds, and in two size golden cans, three and five pounds. Their odor of course, is lavender and they are so prepared as to dissolve immediately in water.

Eye Appeal!

OFTEN it happens that the Fancy Box of most simple design compels greatest attention and leads to the ultimate sale.

Prominent American concerns have always looked to "HATCH" for the *unusual* . . . and none have yet been disappointed! Communicate with us and take advantage of our creative idea service.

The C. F. HATCH Company
Lowell, Mass.



A MODERN PLANT CATERING TO THE NEEDS OF THOSE DESIRING THE LAST WORD IN FANCY BOXES

Resinox may be the answer to your molding problem

With Resinox came a new standard of excellence in molded products—new molding economies. Perhaps Resinox holds the answer to your particular molding problem.

Keep in touch with Resinox developments.

RESINOX

Molding Resins **Molding Compounds** **Laminating Varnishes**

RESINOX CORPORATION
Subsidiary of Commercial Solvents Corporation and Corn Products Refining Company
230 Park Avenue, New York City

Analyzing the New Drug Act

(*Continued from page 122*)

Department's Analysis

distributor and the quantity of the contents. Canned food which moves in substantial quantities from packing to labelling establishments, there to be labeled, is exempted from penalties if it is actually labeled properly before leaving the labeling establishment.

(c) All statements required by this and other sections of the act must be plainly and conspicuously set forth in terms readily intelligible to the consumer.

Sec. 7. (a) Food misbranded if in deceptive or slack-filled containers.

(b) Food misbranded if offered for sale under name of another food.

(c) Food misbranded if imitation and not so labeled.

(d) Food misbranded if it fails to meet the definition of identity legally promulgated by regulations, or if its label fails to bear the name of the article.

(e) Food misbranded if standards of quality have been legally promulgated and its label fails to state the quality of the food.

(f) Food misbranded if it is represented as one for which no definition has been prescribed and its label fails to bear the name of the food and of each ingredient in the order of predominance by weight.

Secretary authorized to require by regulation such further information on the label as may be necessary to prevent deception.

Sec. 8. (a) A drug misbranded if labeled with the name of a disease for which it is a palliative but not a cure and fails to state that it is not a cure, or if its label bears any statement concerning the effect of the drug contrary to the general agreement of medical opinion.

(b) Labels for drugs containing any narcotic or hypnotic substance must bear the name and quantity of such substance with the statement, "Warning! May be habit-forming."

(c) Presence and amount of alcohol, ether and chloroform must be declared on the labels.

Supplemental Analysis

(f) Provision regarding food for which no definition of identity has been prescribed, requiring label to give the common or usual name *of every ingredient and in the order of predominance by weight* is useless and impractical.

Contains exception regarding spices, flavors and artificial colors.

Contains an "omnibus" provision authorizing Secretary to require *any* further information on the label which "he may deem necessary to protect the public from deception", under which he could plausibly claim the right to require a statement of all percentages and complete formula disclosure.

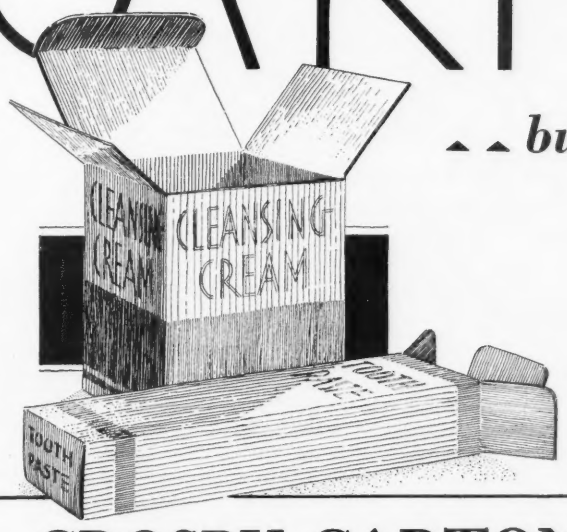
Sec. 8. (a) (1) Provides that a drug product is misbranded if its label or any literature accompanying the product *mentions* any disease for which it is not "a specific cure", *even though it is a palliative* unless *in immediate connection* with the name of the disease and in letters of the same size and prominence it states that the product "is not a cure for" (such disease). There are only two or three "specific cures" known to science. This provision is utterly unreasonable and is designed to hurt seriously the sale of package medicines which are of real value in the treatment of various diseases. If *any* provision, other than one requiring that the label and labeling *truthfully and clearly* represent the properties of the product, is required, a more reasonable and fair provision should be something like this: "—unless the labeling, by appropriate language, clearly and fairly represents that the product is no more than a palliative or of value as an aid in the treatment of such disease." Such a provision would do all that the one in the Bill could *properly* be intended to do, would give full protection to the public and would not serve to wreck unjustly the package medicine industry.

(a) (2) Provides that a drug product is misbranded if its label or any literature accompanying the product represents anything regarding its effect "which is contrary to the general agreement of medical opinion," even if it is absolutely true. Medical opinion changes frequently—is often changed *as a result* of research work done by private commercial institutions. There is reason to believe that this provision would seriously discourage the discovery and development of new products or drug preparations for the proper treatment of disease. There is no sufficient reason for such a harmful provision. It should be sufficient for the law to forbid any false, untruthful or incorrect representation; it is unreasonable to punish a manufacturer of a valuable product for honestly and truthfully representing what it will do.

(c) Requires statement of quantity or proportion of ethyl alcohol, ethyl ether or chloroform on the label of all drug products,

(*Continued on page 156*)

CARTONS



. . . but there IS a difference!

. . . a difference in materials
. . . a difference in workmanship
. . . a difference in price

all of which make CROSBY CARTONS ideal packages for introducing your products to the consumer. Cartons by CROSBY encourage initial sales.

CROSBY CARTON COMPANY INC.

743 E. Sixth St. Boston, Mass.

TRANSPARENCY
WITHOUT EXPENSE

WEATHERPROOF

RIEGELINE

Riegeline is a newly developed product, combining the economy of ordinary glassine with the transparency of more expensive wraps. It twists well, works rapidly on any wrapping machine, requires no special adhesive, and will not expand in wet weather or shrink to the splitting stage in dry weather.

Liberal Samples and Prices Promptly Furnished

RIEGEL PAPER CORP.,
342 Madison Avenue
New York

"FILMA-SEAL"
(the double seal of cap and film)

FOR TABLETS

"FILMA-SEAL" being leak proof it prevents moisture getting to the tablets.

"TAMPER PROOF," it prevents trifling and sampling.

"FILM" or Cap or both may be printed with a message telling your consumer not to accept Tablets if seal is broken.

Used by nationally known advertisers who are satisfied with this inexpensive safety their products thus enjoy.

"FILMA-SEALS" are priced low. We insert them in our standard continuous thread Caps or in your Molded Caps.

Automatically transferred to top of bottle when cap is applied. *NO* added labor costs in sealing 20 to 105 Per Minute depending upon conveyor and capping systems employed.

FERDINAND GUTMANN & CO.
Established Since 1890
39th St., at 2nd Ave., BROOKLYN, N. Y.

Trade Marks Reg. Pats. Pending

Management Forum

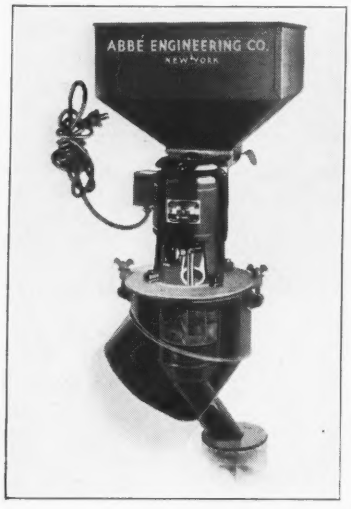
By Francis Chilson
Production Engineer

Case Brander

Firms that like their names and addresses burned into their shipping cases will be interested in the electric Keg Brander made by Everhot Mfg. Co. The device is mounted on a post and is provided with a lever to bring the brander down on the case from which it springs back as soon as released.

Sifter

Abbe Engineering says that they have added a feed control to their Midget Blutergess Turbine Sifter. Although this is called a "laboratory" sifter it has sufficient capacity to take the entire output of



many small and medium size plants. If we remember correctly it is estimated that the unit will take fifty pounds of face powder per hour.

Time Switch

R. W. Cramer & Co. has a neat little time switch unit designed to control melting and mixing tanks. This one is said to be more accurate than most and is guaranteed to effect a shut down within 30 seconds.

Mineral Cement

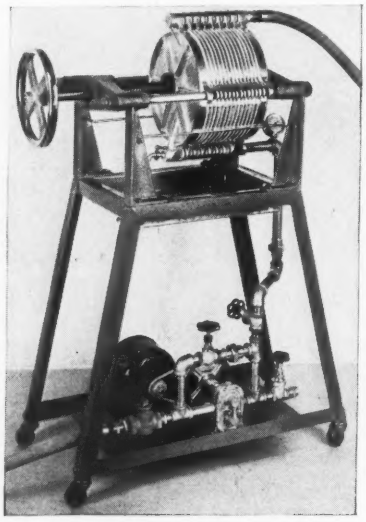
Henry L. Crowley & Co. has developed a mineral cement, which, it is claimed, will stick to glass, wood, cement, leather, metal, cloth, paper, tile, ceramics, etc. We don't know what claims have been made for it in regard to its ability to resist corrosion, but this is worth looking into.

Air Compressors

Those of you who used compressed air for blowing bottles in connection with home made or the new automatic bottle cleaning units will be interested in investigating Allis Chalmers new rotary air compressor. It is a very compact little unit.

New Ertel Filter

Ertel Engineering Corp., New York, has just developed a new filter known as Model EW which is said to be extremely



efficient. The filter comes in various sizes, using from 14 to 100 asbestos filter sheets.

Dust Precipitator

American Air Filter Co. has devised an ingenious dust collecting device called the Dynamic Precipitator. This machine resembles an electric motor fitted with a blower. The dust laden air is drawn in through an opening in the blower. This contains a turbine with blades so arranged that dust is at once precipitated and drops through an outlet, while the cleaned air is expelled through a discharge port. This machine should prove very convenient and economical to face powder manufacturers and others who are afflicted with a dust problem. It is said to do away with the cumbersome cyclones and suspended shells common to most dust collecting systems. The unit is available in seven sizes of pressures from two to nine inches. If desired a complete self contained unit mounted on a stand can be obtained. This is provided with a hopper for collecting the precipitated dust. We've got an installation which will require this device and in a couple of months we'll let you know more about it.

Translucent Glass Coating

Those of you whose laboratories or assembly conveyors are located near big windows where the heat of the sun in summer makes working conditions intolerable will be interested in No-Glare, a product of the Skybrite Corp. This material is translucent blue in color and can be brushed or sprayed on windows. It dries quickly leaving an even film which admits 94% of the light but is said to eliminate glare entirely while at the same time reducing the transmission of heat very materially.

Waterproofing

Billings-Chapin Co. have a material which is said to be absolutely waterproof when applied to walls. In itself it may be used as paint, or if one chooses, it can be used as primer. It can be applied to wet or dry surfaces:—plaster, concrete, wood, stone, brick, metal either in or outside. After application the surfaces can be washed. Apparently this answers the need for a good wall paint that will stand the gaff of steam, fumes and repeated washings.

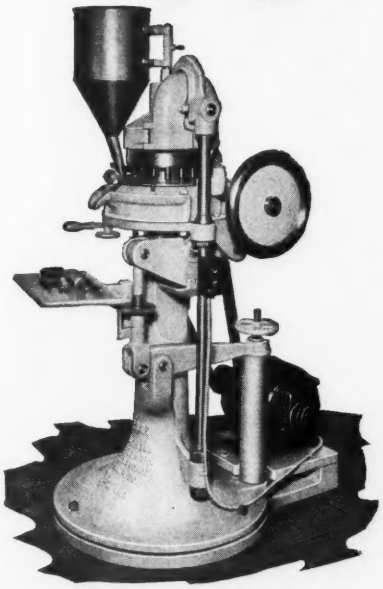
Noise Deadener

Roller mills, pulverizers, pony mixers and the like are often pretty noisy and cause a helluva lot of annoying vibration—especially on hot, muggy afternoons when the factory manager is endeavoring to get a bit of sleep in his office on the floor below. Firestone Tire and Rubber has come to the rescue with Vibration Dampers, which consist of a couple of strips of angle iron with live rubber strips bonded between them. The dampers fit under the machines and are anchored to the floor in such a fashion that vibration is transmitted to the tough rubber shock absorber.

NRA MEMBER U.S.

WE DO OUR PART

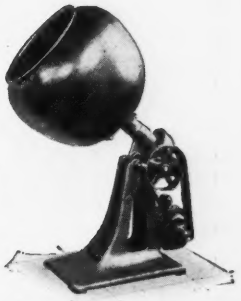
N I R A



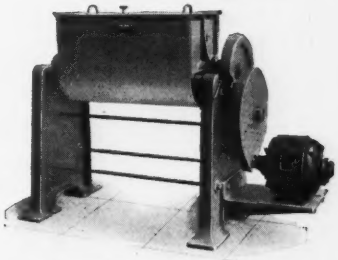
New STOKES "B-2"—Tablet Machine

NIRA urges action in place of delay. Buy now the machines you have wanted --- perhaps needed --- but deferred until the business upturn. It may be an uprush. Buy now.

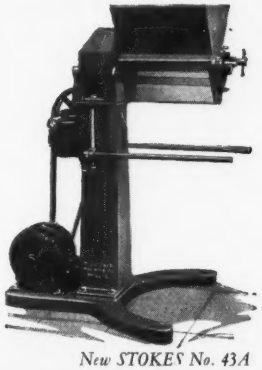
Happily during the depression we concentrated on new machines and improvements---just what certain fields of industry need for NIRA'S New Deal.



STOKES Coating Pan with New No. 1A Stand. Same Stand is used with Polishing Machine



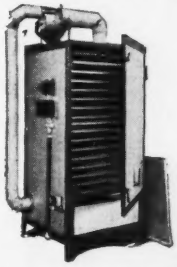
New STOKES No. 21—Granulating Mixer



New STOKES No. 43A Oscillating Granulator

STOKES
Pharmaceutical
Equipment

Tablet Making Machines	High Vacuum Pumps
Drug Mills and Mixers	Molds of all Types
Oscillating Granulators	Capsule Fillers
Drying Closets	Percolators
Coating and Polishing Pans	Jacketed Kettles
Powder Fillers	Bottle Washers
Tube and Jar Fillers	Conveyors
Vacuum Pans and Dryers	Water Stills
Alcohol Recovery Apparatus	Special Machinery



New STOKES No. 38 Drying Closet

FJS

FJSTOKES MACHINE COMPANY

Pharmaceutical Equipment since 1895

5932 TABOR ROAD OLNEY P. O. PHILADELPHIA, PA.

NRA MEMBER U.S.

WE DO OUR PART

Cooler

Manufacturers of creams, ointments, shaving soaps, mouth washes and other products that require moderate chilling will be interested in the Ross Decalorator, a machine for chilling water used in jackets, condensers, milling rolls, or circulating systems of any kind. The machine operates on the fact that water under high vacuum will vaporize at low temperatures. The water to be cooled is shot in the form of a fine spray into the evaporator, thus presenting sufficient water surface to cause instantaneous evaporation. The evaporization heat of this small quantity is absorbed by the water supply and hence the smaller quantity is chilled to the desired temperature.

Acid Proofing

Kewaunee offers a transparent proofing material which, when applied to laboratory tables or desks, protects them against acids, alkalies and water without changing their original color and finish. The material is applied with a woolen rag like ordinary furniture polish.

Acid-Alkali Resisting Cement

Sauer-Eisen Melting Compound is the title of a new cement said to possess high dialetic strength, which when applied to metal, porcelain, glass, stone or wooden surfaces will resist water, oils, acids and alkalies.

Collapsible Barrels

General Box Co. has produced a novel collapsible barrel similar in appearance to the familiar wire-bound veneer box, which will carry, it is claimed, from 600 to 700 pounds of material and furthermore can be used more than once. The unit consists of the two heads, a locking hoop and the body. It comes flat and can be set up in a few minutes. Liners are provided for materials requiring extra protection. This will prove a boon to barrel packers and exporters because of the vast saving in floor space. Can also be used for package shipments like any ordinary packing case.

Case Sealer

Yawman Metal Products introduces a new fibre and corrugated case sealer for small production. The unit is very simple and is designed so that the operator can work with both hands free. We are told that the unit can be used for small corrugated boxes and is provided with a "stop box," which enables it to be put into a production line and eliminates taping of dozens and half dozens.

Colored Marking Inks

Cosmetic manufacturers who like fancy shipping cases as well as consumer packages will be interested to know that Marsh has just placed on the market a line of different colored marking inks which adhere as well or better than the conventional black.

Color Matcher

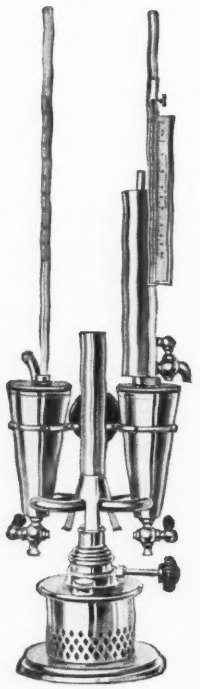
Face powder makers, who have long been troubled by the problem of matching face powder colors will be interested in a neat little Westinghouse unit just placed on the market. The unit operates from a lighting circuit and contains a photo-electric unit. You put the master sample into one doo-dab and the batch samples into another and read off the variations on a meter.

Collapsible Roller Conveyor

Ever since the market collapsed, collapsing seems to be the fashion. Now we have a collapsible roller conveyor which folds up like an accordion. The unit can be compressed, extended or bent around a post. It is extremely useful for unloading cars and for connection with permanent conveyors where a portable unit is required. The outfit is made by Parker Machine Works and comes in three and five section units in widths of 10 to 18 inches. It is said to be extremely strong and yet light enough so that a man can easily carry the largest section.

Alcohol Tester

A twin ebulliometer, which provides direct reading of the alcoholic content of a liquid without reference to charts is being offered by C. J. Tagliabue Manufacturing



Co. The principle on which the operation is based is the change of boiling point with the change in alcoholic content. Boiling points of both water and test liquid are taken at the same time thus eliminating the need for correction.

Stonhide

This material is a colorless liquid which may be sprayed or painted upon tanks, walls, floors, fume hoods etc. It is said to be highly resistant to corrosion and to wear.

Folding Tables

Very neat folding tables suitable for assembly work can be bought from Standard Pressed Steel. When folded and stacked each table is only two and one half inches high. The tops are made of laminated wood, the legs of steel. Standard sizes are 4, 6, and 8 ft. long, 36 inches wide and 29 inches high.

Temperature Regulator

One of the smallest units and simplest methods of controlling temperatures we have seen is the one provided by American Instrument Co. in the form of an instrument known as the Quickset Bimetal Regulator. It has a temperature range from 60 to 320°F. You can immerge the unit in a melting or mixing tank, set the temperature you want on the head of the regulator and forget about it. When the batch reaches the desired temperature the regulator contacts break the current and the machine stops.

Cooling Unit

Fitz-Gibbons and Crisp have introduced a cooling unit in which the air passes over ice. The unit is so designed that the ice is constantly in contact with the conductor fins so that the air blown through by the fans is kept at a fairly constant temperature. Those of you who are experimenting with rapid cooling of cream and ointments might find in this unit a useful device.

Corrosion Proofing

Porox is the name of a corrosion proof brick put out by Patterson Machine and Foundry. The bricks may be laid in any type of cylindrical or square tank and it is claimed that they will withstand the action of sulfuric, nitric, acetic acids, aluminum chloride, hydrogen peroxide, etc. Porox is not a new material but a development of similar bricks used for lining tube and pebble mills. The bricks are laid in acid proof cement. The process when applied to steel tanks is said to provide corrosion proof tanks at less expense than new metal alloys tanks would cost.

Heating Units

Harold E. Trent Co. offers you a series of very useful little heating units of various designs. You can get strip units for strapping to pipe lines connecting ointment and cream tanks with filling machines. You can get immersion heaters for taking the flow resistance out of barrels of petrolatum and lanolin. You can also get a caterpillar type, which comes in strips of any length you want, for winding about pipes. So there's no longer any reason for cursing when a cream pipe gets clogged or cream comes out of the filling ports in lumps.

ROSS CHANGE CAN and STATIONARY MIXERS

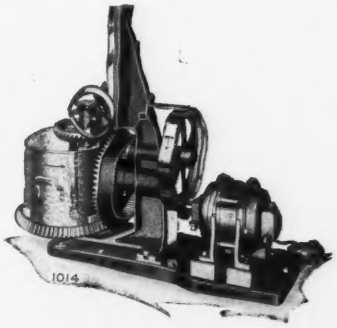
FOR MIXING LIQUIDS, TOOTH PASTE, VANISHING CREAMS, OINTMENTS, ETC.

No. 30E-L Size "O" or 1½ gal. Portable Electric Laboratory Rapid Mixer.

A mixer especially designed for Laboratory and experimental work.
Will mix from ½ pint to 1 gallon of liquid or paste.
Container 9⅜" dia. by 6⅝" deep, holding 1½ gallons. Container and stirrer may be tin coated or made of any other acid resisting metal desired.
Can be run from a light socket.

No. 36-E Spec. 25 gallon Enclosed Rapid Mixer Motor driven

With rapid stirrer giving a whirlpool action for mixing liniments and similar liquids.
Tanks and stirrer can be tin coated or made of other non-corrosive metal.
Built in sizes to 2000 gallons.



No. 30 - M Portable, 8 gal. Heavy Duty Change Can Mixer—Motor Driven

For use in mixing small batches of paste and similar substances, in quantities from ½ to 6 gallons. Sizes from 8 up to 45 gallons.

CHARLES ROSS & SON COMPANY

83 EMERSON PLACE **1869-1933** **BROOKLYN, N. Y.**

No. 2 Rotary Tablet Machine

New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

Write for Catalogs.

ARTHUR COLTON COMPANY

2620 East Jefferson Ave.
Detroit, Michigan

Wrapping Help

Those who are compelled to use hand wrapping either due to the character of the product, or to a limited production which will not permit of automatic machines, will be interested in a new machine which, it is said, will cut wrapping costs in half.

This machine, known as the Wrapade machine, takes the wrapping material from a roll, cuts off the required amount, applies a seam of adhesive and delivers the prepared sheet to the operator. Because the operator does not have to separate one sheet from a stack and apply adhesive with a brush, her daily production is greatly increased. A further saving is effected because the wrapping material is purchased in rolls instead of in cut-to-size sheets, the cost of rolls being 15 to 25 per cent less.

The machine is a table model about twice the size of a typewriter.

Fountain Marker

Garvey Brush and Ink Co. has introduced a new fountain brush for marking cases. This one is a little different from the usual run in that the ink flows through a central channel to the tip of the brush. We think this might prove a useful device in the assembly of powder boxes. Filled with a light viscosity, free flowing glue the fountain brush should speed work. But because of weight the brush should either be made out of aluminum or suspended from the ceiling on one of those snaky spring affairs that the dentist swings his drills on.

Homogenizers

We are indebted to Mr. G. K. Heller for this interesting discussion of homogenizers and their application to our trade. Mr. Heller has had considerable experience in this work. We will be glad to put you into touch with Mr. Heller or will supply you with information on the various makes of homogenizer on the market.

Processing emulsions with the homogenizer is a problem of Colloid Chemistry and Hydraulics, of which so little is known and so few experiments along these lines are made, that a description of the machinery is in order.

An homogenizer means literally a machine for making a product homogeneous. While this may be true, the more important function of this machine is its ability to make the particles of the dispersed phase smaller, and at the same time make them all of the same size. This machine, which we name improperly, is 95% a high pressure pump, and 5% a dispersion mill. Stock equipment can be operated at pressures of 5,000 pounds per square inch intermittently and at least 3,500 pounds continuously. The velocity at 3,500 pounds is approximately 130,000 feet per minute.

The pressure is built up on one type by decreasing the size of the opening between the homogenizing valve and its seat; and the velocity of the liquid through the valve is directly proportional to the pressure. This homogenizer or plunger type emulsifier, operates on the principle of hydraulic shear. The machine is a tri-plunger type pump, with an extremely small displacement compared to its rugged construction. The product to be emulsified is pushed through an orifice created by holding a conical valve against its seat.

When a bullet, traveling at the rate of 3,000 feet per second, strikes an iron plate, it is shattered to bits; this is precisely what happens to an oil particle in an homogenizer.

Emulsions of automobile and furniture polish, lotions, creams, and other preparations where oils or fats are dispersed in water, have a tendency to cream when made with an ordinary paddle mixer. This creaming, which is identical with the butterfat rising to the top of a bottle of milk, is due to the large size of the oil globule. When the oil particle is larger than 1.5 microns, it will float to the top of the dispersing medium, but below 1.5 microns there is no creaming. For instance if a quantity of milk is run through an homogenizer at 2,000 pounds per square inch, a cream line will not form. This is the case of an ordinary oil in water liquid cleansing cream emulsion. The particles of oil are so large that they do not have a Brownian movement, and cannot overcome the pull of gravity on the water phase, which is heavier. If on the other hand, they are of a size of 1.5 microns or less, the Brownian movement is rapid and gravity does not have any effect. The particles spin and jump, keeping themselves evenly distributed in the dispersing phase.

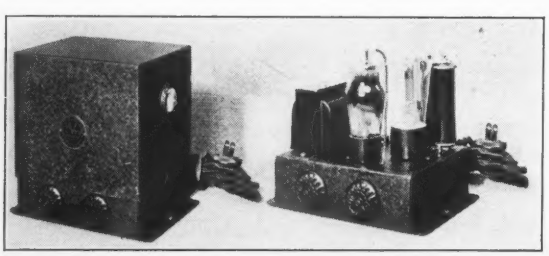
All of this is true of course provided the soap or gum emulsifier is in proper proportion. If, for instance, the liquid cleansing cream has a content of 12% trihydroxyethylamine stearate, the particles will not cream for two reasons. The large quantity of soap would considerably increase the viscosity of the product, lower the surface tension to such an extent, that the particles of oil would have a diameter of less than 1.5 microns. This, of course, is a chemical dispersion and an homogenizer is not needed, but a cleansing lotion with such a high soap content is not wanted because of the effect on the skin, and the cost of the emulsifier. A liquid cleansing cream with a 1.5% soap content is ideal because there is not enough soap to harm the skin, and the cost is considerably lower. Its cleansing properties will be as good as the high soap content cream, if it is homogenized. In the latter case the cleansing is done by the dispersed oil and not by the soap.

Emulsions of stearic acid and spermaceti in water or mucilage, which sell under the name of liquid vanishing creams, and honey and almond lotions, are considerably improved by homogenizing. The stearic acid and spermaceti are dispersed finer and the pearly appearance is materially enhanced.

At the present time several research workers are making emulsions for intravenous injection, and the homogenizer is the only known machine that will make dispersions fine enough for this purpose.

Mercury in Gray Ointment

Mercury is determined in gray mercury ointment by gently heating one gram of ointment with 5 cc. conc. nitric acid until mercury is dissolved. Solution is then shaken with 20 cc. of water to dissolve nitrogen oxides. It is then treated with tenth normal solution of potassium permanganate, until color is only slowly discharged. Then solution is heated to 60° C. and treated with crystal of ferric nitrate and titrated with tenth normal ammonium sulfocyanide. Endpoint is reached in cold after sharp change has been observed. F. Vieboeck. Pharmazeutische Presse, volume 37, Wiss.-prakt., page 47.



New Electric Eye

The model, illustrated, is a photo-electric cell which is extremely sensitive to infrared rays, or invisible rays, for use where secrecy is required. It has many uses as in burgular alarms, counting and sorting materials, opening and closing doors, controlling lighting systems, etc. It is made by Herman A. DeVry, Inc., Chicago.

COULD YOUR FILLERS DO THIS JOB? • • •

Quickly, accurately, cleanly, the wide variety of "Farmers Pride" products goes into an equally wide variety of containers with the help of Stokes & Smith Universal Fillers.

Changing from one container to another of different size or style is but a few minutes' work. And each time the auger feed of a Stokes & Smith Filler puts a measured or weighted portion of "Farmers Pride" merchandise into its container, there is a definite, measurable cash saving.

Accurate, S & S Fillers prevent over-filling, save the loss of goods that are sold but never paid for. Clean, S & S Fillers prevent drip or spill, waste or unsanitary working conditions. Fast, each Filler does the work of several experienced hand operators. Flexible, S & S Fillers will fill almost any container with almost anything.

Details and specifications will be gladly furnished upon request

STOKES & SMITH Co

PACKAGING MACHINERY · PAPER BOX MACHINERY
4912 Summerdale Avenue
PHILADELPHIA, PA.

Conveyors and Packaging Belts

Finishing Belt Conveyor

Important equipment at a time like this, are conveyors and packaging belts!—saving labor and time, cutting the corners that often mean the difference between loss and profit on your merchandise.

They enable fewer people to turn out more work. They organize your force into a 100% producing unit. They set the pace that gives you the production you want.

Kiefer Conveyors are made especially for this work. Kiefer engineers can show you how they will save money in your plant.

Our catalog shows all types with full details and interesting plant installations.

The Karl Kiefer Machine Co.
Cincinnati, Ohio

Analyzing the New Drug Act

(*Continued from page 148*)

Department's Analysis

(d) Methods of use must be prescribed on the labels.

(e) Drugs sold under names not recognized in pharmacopoeia or formulary required to bear their common name, if there is any, and the name and quantity of each medicinal ingredient.

The secretary is authorized to require such further information on the label as may be necessary to protect public health.

(f) Pharmacopoeia and formulary drugs must be packed and labeled as required by these authorities.

(g) Drugs liable to deterioration must be packaged and labeled as required by regulations.

(h) A drug misbranded if its container is deceptive, or if it imitates another drug, or if it is offered for sale under the name of another drug.

(i) Germicides and antiseptics must kill micro-organisms under conditions of use indicated in labeling.

Sec. 9. (a) and (b). Advertising of food, drugs and cosmetics defined as false if misleading in any particular.

Supplemental Analysis

not only on those for internal use by man. No sufficient reason for extending it to products for only external use or veterinary use unless the drug is present in sufficient quantity or proportion to make its use dangerous. Such a statement of quantity or proportion means little to the ordinary user. A provision that when a product contains any of those substances in such quantity or proportion as to reasonably make its use dangerous its label must bear a warning and adequate statement of precautions to be taken in its use would be more reasonable, practical and effective.

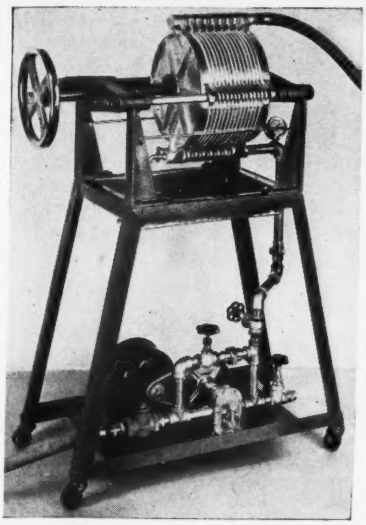
(e) Applies to all private formula preparations and *requires complete and exact* disclosure of all secret formulae. The provision is unreasonable, unnecessary, useless, unjust and unwise. Long urged by the American Medical Association, *it would wreck the package medicine industry*. It would deprive the public of many package medicines that are of sufficient value for physicians to prescribe them. It would deprive the public of the undoubted benefits of research on the part of commercial institutions, by discouraging that kind of expensive work and turning over all valuable formulae that might be developed to trade pirates. It would benefit only medical practitioners and at the expense of the public and the destruction of a large, legitimate industry.

Contains an "omnibus" provision under which the Secretary is authorized to require on the label *any* other information "he may deem necessary to protect the public health"; only he would be judge of that.

(i) Requires label of every germicide, bactericide, disinfectant or antiseptic if for use on or in human or animal body to bear a statement of each such use and conspicuously "and in juxtaposition therewith, the method and duration of application necessary *to kill all* micro-organisms" with which it comes in contact when so used (unless it is represented as effective against only specific kinds of micro-organisms and gives that information in respect of killing 100% of those kinds). One hundred per cent efficiency should not be required of any drug product any more than 100% success is required of practicing physicians. There is no sufficient reason for any provision referring specifically to these classes of products so long as labels are required to be truthful, but if any is desired a better, more practical and reasonable one would be to the effect that a drug product shall not be represented, in labeling, *or advertising*, to have germicidal, bactericidal, disinfectant or antiseptic properties unless, when used according to directions in labeling, it does in fact exercise such properties to an appreciable and reasonable extent that is of real and substantial value as an aid in the treatment of the conditions for which the product is therein recommended.

Sec. 9. (a) Provision that any advertisement of any food, drug or cosmetic shall be deemed to be false if it is, in any particular, untrue or if it even creates either "by ambiguity or inference" *any misleading impression* regarding the product. Analagous to Sec. 6 (a) and, like it, requires no criminal intent; extends to all advertising what Sec. 6 (a) provides regarding labels. Lack of reason to believe an advertisement false or as creating any misleading impression is no defense in criminal prosecution of advertisers or of publishers, radio broadcast licensees or advertising agencies through whom the advertisement is disseminated in interestate commerce.

(b) (1) Provides that any advertisement for any drug product is false (so that advertiser, publisher, radio licensee or advertising agent can be heavily fined and committed to penitentiary)



ERTEL MODEL "EW" FILTER WITH HAND WHEEL

Simplicity, Price, Economy, Workmanship and Speed, plus Brilliancy to your liquid, make Ertel filters and filter sheets the most desirable.

Manufacturers of portable mixers, glass-lined tanks, stainless steel tanks, portable bottle fillers, pumps, etc.

ERTEL ENGINEERING CORPORATION

108 EAST SIXTEENTH STREET
NEW YORK • • N. Y.

NEW!! #5A DIRECT MOTOR DRIVEN
Tube Closer & Folder

Our new No. 5A Direct Motor-driven Folder and Closer has a capacity of up to 40 tubes per minute. Can be equipped with a Clipless Attachment at slight additional cost. An exceptionally compact unit, occupying a minimum of space. Foot pedal, not shown, supplied with each motor-driven machine.

Combined with our No. 8A Standard Tube and Jar Filler and No. 4A Clip Fastener, both motor-driven, this makes the most economical and efficient complete unit on the market today. Send for Catalog No. 5 which also contains specifications on:

Paste and Cream Mixers
Portable Electric Mixers
Bottle Fillers
Powder Fillers
Ointment Mills
Rotary Pumps
Centrifugal Pumps
Filling, Closing and Clipping Machines, hand and automatic
Powder Mixers and Sifters
Jacketed Kettles
Glass Enameled Tanks

GEORGE G. RODGERS CO.

183 VARICK STREET — NEW YORK CITY
WAlker 5-6892 — Established 1890

HAVE • YOU • A • PROBLEM

of

- MIXING
- EMULSIFYING
- FILTERING
- FILLING
- CAPPING
- LABELING
- CARTONING
- WRAPPING

bring it to

FRANCIS CHILSON
PRODUCTION AND PACKAGING ENGINEER
101 • WEST • THIRTY • FIRST • STREET • NEW • YORK

WE • WILL • SOLVE • IT

Quality in Cosmetics

Established in 1929, this business has shown steady progress with each passing year. Constant growth through this period testifies to the outstanding quality and merit of cosmetics by Sterling.

Many cosmetic manufacturers have found it to their advantage to turn their rouge and lipstick manufacture over to us. We have demonstrated to their satisfaction our ability to furnish unexcelled high quality products at a most economical cost. We shall be glad to consult with you on your cosmetic items.

STERLING MANUFACTURING CO.
BELLEVILLE, N. J.

Department's Analysis	Supplemental Analysis
	if it *mentions any disease* for which it is not "a specific cure" even if it is a palliative or valuable as a treatment, unless the advertisement states "with equal prominence and in immediate connection with such name" of the disease "that the drug is not a cure for such disease." (Analagous to Sec. 8 (a) (1) which applies to labeling.) The provision is impractical and designed to destroy package medicine advertising (and therefore the package medicine industry) by making such advertising ineffective and unprofitable. Nothing more should be required of advertisements for drug products than that they be absolutely truthful in statement and reasonable implication.
	(b) (2) Provides (as Sec. 8 (a) (2) does regarding labeling) that any advertisement for any drug product is false if it makes "any representation, directly or by ambiguity or inference, concerning the effect of such drug which is contrary to the general agreement of medical opinion" at the time, even if such representation is absolutely true. Besides killing much perfectly proper advertising or making advertisers, publishers, radio licensees and advertising agents go to the penitentiary for it, like Sec. 8 (1) (2) this provision would also discourage research by commercial institutions. It is designed to "discourage" drug advertising and relieve physicians of competition, at the expense of the public (who would be deprived of the benefits of such research) as well as at the expense and risk of manufacturers, publishers, radio stations and advertising agencies.
(c) Public advertising of drugs for diseases wherein self-medication may be dangerous prohibited.	(c) Prohibits representing in advertising that any product has even "any effect" in the treatment of a long list of specified diseases, regardless of the fact that it may have very beneficial effect and be of sufficient assistance in the proper treatment or care of the patient for physicians to prescribe it. The provision candidly states that its purpose is "to discourage" such advertising in other publications but allows it to be done "in scientific periodicals" such as the *Journal of the American Medical Association*. Even for the benefit of physicians truthful advertising ought not to be made a penitentiary offense.
Sec. 10. Secretary authorized to prohibit added poisons in food and cosmetics, or prescribe tolerances for them.	Sec. 10. This is the provision which, because of the definition of "food" in Sec. 2, enables the Secretary of Agriculture to wipe out promptly and completely by executive action and without going into court any business in medicated candy, gum or the like. The vicious character of this section could be expunged by defining the term "food," in Sec. 2, to exclude any substances for which therapeutic claims are made so that they would come (as they should) under the provisions pertaining to drugs and their "dangerous character" be judged according to their directions for use, instead of according to what could possibly happen.
Sec. 11. Secretary authorized to establish definitions of identity and standards of quality and fill of container for food.	
Sec. 12. Secretary authorized to require permits for interstate shipment of classes of food, drugs and cosmetics which by reason of conditions surrounding their manufacture may be injurious to health, and where their injurious nature cannot be adequately determined after interstate shipment.	Sec. 12. (a) The practical effect of this section is to make it possible for the Secretary to slap a license or permit upon any manufacturer of food, drug or cosmetic products, under almost any conditions he may see fit to impose regarding the operation of the plant, and to make "such regulations governing the conditions of manufacture, processing or packing as *he* deems necessary to protect the public health."
	(b) Authorizes him "to suspend immediately upon notice," without warning, hearing or opportunity for defense, any such permit "if it is found that *any* of the conditions of the permit have been violated."
	(c) Provides that "any officer or employee duly designated by the Secretary shall have access to" any establishment he has put under license, "for the purpose of ascertaining whether or not the conditions of the permit are being complied with"; owner cannot afford to question inspector's right to examine anything he cares to, because "denial of access for such inspection shall be ground for suspension of the permit."

Non-Alkaline

Creams

Manufacturers interested in non-alkaline creams will find it to their interest to investigate the properties of PROTEGIN X, an odorless absorption base for neutral or acid water-in-oil creams, and TEGIN, a ready base for neutral oil-in-water creams.

Brushless Shaves

A non-irritating and non-greasy brushless shaving cream can now be easily made by using our new EMULSIFIER 157. It also serves as an excellent base for pearly-lustered, non-greasy vanishing creams and for stable oil-in-water type liquid emulsions.

PRESERVATIVES

and

ANTISEPTICS

NIPAGIN M, NIPASOL M, and NIPABENZYL. Phenyl coefficients: 3, 17, and 109. Neutral, odorless and non-irritating.

Recommended for their high efficiency in agar emulsions, gum solutions, eye washes, hair waving preparations, vaginal douches, vegetable oil emulsions, skin creams, and in any products which require an antiseptic or preservative.

Th. Goldschmidt Corp.

70 Pine Street New York

MYSORE GOVERNMENT SANDALWOOD OIL

Distilled at our Linden, N. J., Plant from Santalum Album (Linné)

The World's finest Sandalwood is grown in the State of Mysore. The Oil richest in Santalol comes from the Heart-wood, and nothing but selected Heart-wood is used for the production of MYSORE Oil.

This, together with scientific distillation, accounts for the universally recognized superiority of Mysore Oil, and is why Mysore Oil is always taken as the standard measure of quality. It is real economy to use genuine Mysore Oil—substitutes and imitations in the long run cost more.

Every can of Mysore Oil is specially sealed and serially numbered. Do not merely specify "Sandalwood Oil U. S. P." but insist upon Mysore Oil, and for your own and our protection be sure the seal is unmutilated.

W. J. BUSH & CO.

INCORPORATED

Essential Oils . . Aromatic Chemicals . . Natural Floral Products

Sole Agents for the United States
W. J. BUSH & CO., Inc.
New York

Sole Agents for Canada
W. J. BUSH & CO. (Canada) Ltd.
Montreal

LONDON MITCHAM MESSINA GRASSE

Department's Analysis	Supplemental Analysis
Sec. 13. Inspectors authorized to make inspection of factories, warehouses, and other establishments in which food, drugs or cosmetics are manufactured or held. Provision made to enjoin interstate shipment from factories or warehouses refusing privilege of inspection.	Sec. 13. (a) (1), (2). Provides that officers or employees duly designated by the Secretary "are authorized to enter any factory, warehouse, or establishment in which food, drugs or cosmetics are manufactured, processed, packed, or held for shipment in interstate commerce or are held after such shipment" or any vehicle being used for such shipment, and "to inspect such factory, warehouse, establishment or vehicle *and all equipment, methods, processes, finished and unfinished materials,* containers, and labels." Provides that such officers and employees may do these things "after first obtaining permission of the owner, operator or custodian," but see the next paragraph. (b) Provides that denial to officers or employees of permission so to enter and inspect is ground for the U. S. District Courts to issue an injunction to restrain the shipment of any product from the plant *until the permission to enter and inspect is given.* Note: As a practical matter, the enforcement of Sec. 12 and Sec. 13 will probably force most manufacturers to apply "voluntarily" for the "Voluntary Inspection Service" provided for in Sec. 22, whereby they will relieve the Food and Drug Administration of all expense for "supervisory inspection."
Sec. 14. Interstate carriers of food, drugs and cosmetics, and *interstate consignee of such articles,* required to permit inspectors to copy records showing interstate shipment.	
Sec. 15. Authorizes the department to investigate food, drugs and cosmetics, through its own agents or through State or city officials.	*Sec. 15. (a) Provides, together with Sec. 23, that the* Secretary, through any employee or any food, drug or health officer of any State, Territory or County, may conduct examinations and investigations just like the Federal Trade Commission and, like it, can compel the attendance of witnesses and production of any documents, anywhere in the United States. And that the findings of fact "shall be conclusive if in accordance with law" so that the Courts cannot reverse them if there is any evidence by which the findings could be sustained.
Prescribes duties of United States attorneys to whom violations of the act are reported.	(b) Provides that U. S. District Attorneys *must* institute criminal or seizure actions upon demand of the Secretary, leaving no discretion to such District Attorneys, or when any State, Territory or County health, food or drug officer "presents evidence satisfactory to the United States attorney" of any violation of the law.
Requires secretary to give opportunity for hearing before criminal prosecution.	(c) Provides that Secretary must give notice before institution of any *criminal,* not seizure or injunction, action.
Sec. 16. Authorizes seizure of articles in violation of the law by process pursuant to libel, or in cases where there is probable cause to believe that articles are adulterated so as to be imminently dangerous to health, upon the order of an officer of the department, after which jurisdiction of the court attaches. Where recovery is had in a suit against an officer by reason of seizure on probable cause, judgment will be paid out of appropriations for *the administration of this act.* Courts authorized to dispose of articles condemned after seizure, by destruction or sale. Proviso *made that seized goods* may be returned to the claimant under bond for destruction or for bringing them into compliance with *the law, if this can be done.*	Sec. 16. Provides same old clumsy, expensive, *inefficient* procedure by seizure of products to induce manufacturers to correct labels. A proper provision *to compel compliance with all provisions* of the law, by a cease and desist order issued by the Secretary upon notice and hearing and only after opportunity for informal discussion and voluntary compliance, would be much more efficient and better in every way. Under the Bill there is no method to compel correction of advertising statements or to prevent improper advertising except by bringing a criminal prosecution against the advertiser, publisher, broadcaster or advertising agency, or all of them, and having them heavily fined and thrown in the penitentiary no matter how innocent the mistake. The Bill is designated *to prevent* drug advertising rather than to correct or clean up improper advertising.
Sec. 17. Provides penalties of imprisonment and fine for both first and subsequent violations of act; repeated offenders and wilful offenders subjected to heavy penalties.	Sec. 17. (a) Makes it criminal *for any* one, whether manufacturer, wholesaler, retailer, railroad or other common carrier, advertiser, advertising agency, publisher or radio broadcast licensee, to do any of the following acts: to introduce, receive, deliver or offer to deliver in unbroken packages, in interstate commerce, any food, drug or cosmetic that is either adulterated or misbranded according to Secs. 3, 4, 5, 6, 7 and 8; the dissemination of any "false advertisement" according to Sec. 9, in interstate commerce for inducing the purchase of any food, drugs or cosmetics or even within a Stage if for the purpose of inducing the sale in interstate commerce of such products; the introduction into interstate commerce of any food, drug or cosmetic if the

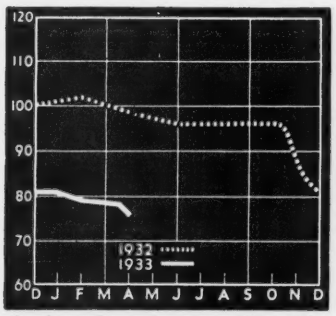
(Continued on page 174)

ADVERTISEMENTS — *Each article on this page is a paid advertisement.*

ALCOHOL NEWS

AUGUST ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1933

ETHYL ALCOHOL PRODUCTION



(*moving twelve-month averages*, 1931 = 100)

		1933	1932
PRODUCTION			
1000 proof gals.	Jan.-May..	41,488	54,805
	May.....	9,149	11,578
	April.....	9,012	10,137
SALES			
1000 proof gals.	Jan.-May..	38,138	41,217
	May.....	9,044	8,972
	April.....	6,667	7,530

SALES SHOW INCREASE OVER 1932

Reported sales for the month of May again show an increase over the same period last year; the second in four months, which indicates a change in the previous downward trend of both production and sales since February, 1932.

Prices were recently announced by producers on C. D. No. 5 for July to February delivery and brought out an active demand from the anti-freeze trade last month. Effective July 25th, the prices on C. D. No. 5 were advanced 2¢ per gallon. Other grades have also experienced a brisk demand for immediate and near-by delivery. An increase in the price differential of grain alcohol over cane to 10¢ per gallon was effected due to increased cost of raw material.

Current quotations at producing points are as follows:

C. D. No. 5	
Drums, carlots	34¢ per gal
Less carlots—1 to 4 drums	42¢ per gal
5 or more	40¢ per gal
C. D. No. 10	
Prices are 1¢ per gallon higher than C. D. No. 5	
S. D. No. 1	
Tanks	29.5¢ per gal.
Drums, carlots	33.5¢ per gal.
Less carlots—20 drum lots	35.5¢ per gal.
5–19 drums	39.5¢ per gal.
1–4 drums	41.5¢ per gal.
(Anhydrous grade 5¢ higher)	
Ethyl, 190 Proof, tax-paid	
Tanks	$2.375 per gal.
Drums, carlots	$2.415 per gal.
Less carlots—20 drum lots	$2.435 per gal.
5–19 drums	$2.515 per gal.
1–4 drums	$2.535 per gal.

Prices on C. D. No. 5 and C. D. No. 10 are for delivery to February 1, 1934, and on S. D. No. 1 and Ethyl, prices are for delivery prior to January 1, 1934.

PERFECT ACCIDENT RECORD ATTAINED BY U. S. I. PLANT

The Westwego, La., plant of the U. S. Industrial Alcohol Co., was the only small unit to attain a perfect record in its accident rating for 1932, according to a report recently issued by the National Safety Council, Inc. In addition it was the only plant of its size to reduce both the number and severity of accidents consistently since 1930.

200 PROOF ANHYDROUS DENATURED ALCOHOL EMPLOYED IN A NEW U. S. I. ANTI-FREEZE

Super Pyro 200—Exclusive Product of U. S. I. Combines Advantages of Denatured Alcohol and High-Priced Products

A new anti-freeze product, providing six exclusive advantages over ordinary C. D. alcohol, has recently been introduced by the U. S. Industrial Alcohol Co. Known as SUPER PYRO "200"—The Highest Strength Anti-freeze, this new product will sell at a nominal premium over regular denatured alcohol.

Minimum Strength of 70% Ordered for Rubbing Alcohol

Under an order issued by the Bureau of Industrial Alcohol, rubbing alcohol must contain 70 per cent of absolute alcohol by volume. Under the new ruling no lower percentages will be approved. District inspectors are to instruct manufacturers that the exact quantity of pure alcohol in each bottle must be specified on the label. Brands found to contain less than the amount of alcohol specified on the label will be removed from sale.

"Alcorub"—the well-known brand of rubbing alcohol manufactured by the U. S. Industrial Alcohol Co., conforms in every respect to the new requirements.

KLEIN RESIGNS U. S. I. POST TO ENTER OWN BUSINESS

Sid Klein, Vice-President of the U. S. Industrial Alcohol Co., has submitted his resignation in order to become an independent broker and dealer in the whiskey warehouse receipt business. Before his association with U. S. I., Mr. Klein was Vice-President of the Kentucky Alcohol Co., and also of the Kentucky Distilleries and Warehouse Co. His long experience of over forty-five years in the alcohol business makes him particularly well qualified to enter this new field.

The new organization Mr. Klein is now forming will be located at 347 Madison Ave., New York City, and will engage in active business in the event of repeal of the Eighteenth Amendment. It is understood that Mr. Alfred Van Buren, formerly special counsel to the New York Excise Commissioner and general counsel to the Prohibition Director in Washington, has been retained as special counsel and advisor.

The Industrial Alcohol Institute, of which Mr. Klein was a pioneer organizer, and the U. S. Industrial Alcohol Co., regret his decision to leave the industry.

A safer fumigant to rid ships of vermin has been found in place of hydrocyanic acid, with its attendant danger to human life. It consists of nine parts of carbon dioxide gas and one part of ethylene oxide. The carbon dioxide in the mixture removes the fire hazard which would be present with unmixed ethylene oxide and at the same time practically doubles its toxicity for insects.

* * *

The extraction of ethyl alcohol from ethylene under a recent British patent is described as follows.

A mixture of ethylene and steam of a definite molecular proportion is passed under pressure through a solution of hot sulphuric acid. The concentration of the acid falls at first due to the formation of ethyl sulphuric acid and alcohol, but becomes stabilized at a lower point. The alcohol is separated from the unchanged ethylene, which is then returned to the process.

The merchandising policy behind SUPER PYRO "200" is to provide stable and reliable dealers with a product on which they can be guaranteed a profit—a product that is divorced from the "cut price" and profitless evils often associated with ordinary anti-freeze alcohol. The distribution of SUPER PYRO "200" will be controlled by U. S. I. It will be consigned to carefully selected jobbers, who in turn will be required to sell to reliable dealers who desire to make a fair profit on their anti-freeze sales.

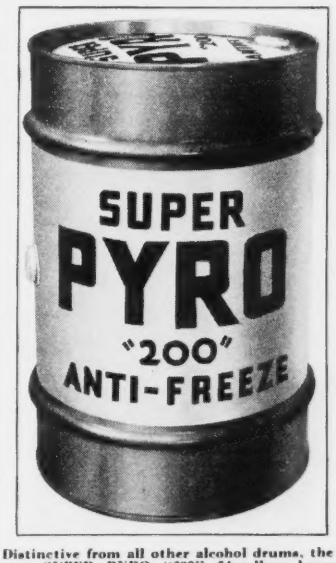
Technical Features

SUPER PYRO "200" will retail at a premium price because of these six exclusive features:

1. Made from 200 proof anhydrous denatured alcohol
2. Stops rust and corrosion
3. Reduces evaporation
4. Has non-offensive odor
5. Tinted a golden color
6. Contains no water —100% anti-freeze

SUPER PYRO "200" actually stops all rust and corrosion. Its use in the cooling system prevents further rusting and corrosive action. By actual test a strip of iron left in a 50% solution of SUPER PYRO "200" and water for three months remained absolutely bright and shiny. * [redacted] the evaporation of the alcohol, the U. S. Industrial Alcohol Co.,

(*Continued on next page*)



Distinctive from all other alcohol drums, the new SUPER PYRO "200" 54-gallon drum makes an outstanding container. The rolling hoops, customarily placed close together, have been moved wider apart to make room for the smart new trade-mark designed in a silver and blue color scheme.

* To retard

200 PROOF ANHYDROUS DENATURED ALCOHOL EMPLOYED IN A NEW EXCLUSIVE U.S.I. ANTI-FREEZE

(Continued from last page)

has added a special soluble oil. This oil is dissolved right in the SUPER PYRO "200" and goes a long way toward reducing evaporation. When the motor is running, the oil circulates through the cooling system with the alcohol, lubricating the system, and when the motor stops the oil

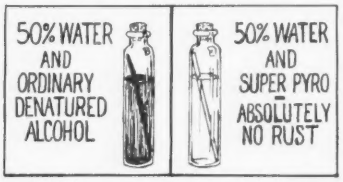


Illustration of the tests showing the rust inhibiting action of the new SUPER PYRO "200."

comes to the surface forming a film between the alcohol and the outside air.

Some aromatic spirits have been added to SUPER PYRO "200" to give it a healthy non-offensive odor.

In order to distinguish SUPER PYRO "200" from ordinary C. D. alcohol a totally new line of containers and colors has been developed. The large 54-gallon drum is of different design having the rolling hoops close to the top and bottom instead of at the center. In appearance the 5-gallon drum and the one-gallon can conform to the largest container. The color scheme of these containers is silver with light blue bands at either end. By opening the space between the hoops the big drum allows a big trade-mark to be placed on the sides which can be seen by passing motorists.

Complete Range of Dealer Helps

An exclusive line of dealer advertising is provided to tie in with the consumer advertising. Dealers will be supplied with two large cloth signs—one for all-season use and the other a cold-weather warning sign to be displayed when a cold wave is predicted. In addition there will be window streamers, charts, leaflets, etc.

The consumer advertising will be in the form of 24-sheet posters. These will be located on the highways wherever there is adequate dealer representation for SUPER PYRO "200." The first showing of these posters will be in October in the northern states and in November in the southern sections. The second showing will be one month later. Two different poster designs will be provided.

Every report from the trade indicates a wide acceptance for SUPER PYRO "200." Jobbers have expressed enthusiasm for the new product as it provides them with substantial profits and frees them from competing with unknown brands of ordinary denatured alcohol.

USES OF ALCOHOL IN INDUSTRY—No. 3

MEDICINES AND REMEDIES

Ethyl alcohol is admittedly the most important raw material in the manufacture of medicines and remedies for the alleviation of pain and the cure of disease. The U. S. Pharmacopoeia, which is the official compilation of the names, descriptions and specifications of drugs and medicines which may be properly employed in curative practice, contains countless references to the use of alcohol. In addition is the multitude of unlisted proprietary remedies, in many of which alcohol enters somewhere in the preparation of the ingredients.

Alcohol in its raw state is seldom used medicinally, but relief from suffering in sciatica and tic douloureux is said to be gained by injections of pure alcohol. Brandy, whiskey, medicated wines and tonics have long been recognized as remedial agents in the treatment and cure of many ailments.

In the manufacture of pharmaceuticals, alcohol is an indispensable chemical. It enters into the actual chemical reactions in substances like anti-pyrine, chloral, iodoform, etc.

As a solvent, it is used to extract the active principles of drugs and medicinal herbs, as well as for a crystallizing medium in purification of many chemical compounds such as oleoresins and alkaloids—all employed in the science of medicine.

Alcohol is a valuable preservative for infusions, decoctions and elixirs. All tinctures and spirits are made with alcohol, i.e., tinctures of aconite, belladonna, spirits of camphor.

Outstanding among medical advances in recent years in the conquest of disease—and to which alcohol contributed its part, is the control of diabetes and leprosy. Insulin, which has given comfort and years of life to diabetics, is obtained by treating the pancreatic glands of animals with alcohol, by which means the important components are extracted.

For leprosy, the oil of the chaulmoogra bean was found to be a specific remedy. However, this oil is both repulsive to taste and affects digestion. A combination of alcohol and chaulmoogra oil has been developed which overcomes in large part these major objections so that now many cases of leprosy are greatly benefited, if not entirely cured—indirectly through the medium of alcohol.

The home medicine shelf would be scantily supplied and ineffectual, were it not for alcohol.

TECHNICAL DEVELOPMENTS

Soapless hair shampoos are made from alcoholic extracts of vegetable matter, drugs, etc., emulsified with either vegetable or egg albumen. Oil mixes readily with such preparations and is easily removed from the hair after treatment.

* * *

A new Ebulliometer based on the principle that the boiling point of a liquid is lowered as its alcoholic content increases is now on the market. It reads directly from a scale and is said to correct automatically changes of prevailing air pressures during tests.

* * *

A new suede-like finish can now be applied to any surface by merely spraying it with a new type of enamel and powder by means of an air gun. The enamel is said to remain wet long enough to allow the powder to be applied and yet to dry rapidly thereafter without artificial forcing.

* * *

A new insecticide has been recently developed by dissolving selenium in a solution of ammonium sulfide. It is planned to use a 30 per cent solution.

* * *

A perfume dispenser, made to fit a four, six, or eight-ounce glass bottle, is now being used to permit customers to sample, by smell, the bulk perfume before buying.

* * *

An improved method for obtaining alcohol from wood has been perfected in Sweden whereby the output is considerably higher than in the methods formerly employed. Water containing a minute quantity of sulphuric acid is percolated through the wood material under pressure which carries away any sugar formed. The solution is quickly cooled and subsequently fermented and worked into alcohol.

* * *

A new chemical, possessing unusual properties of skin penetration, is being introduced for use in medicated ointments and skin creams. Known as Ortho-phenyl-phenol, it has been subjected to numerous comparative tests to illustrate its action in bringing about penetration of ingredients into the tissues.

* * *

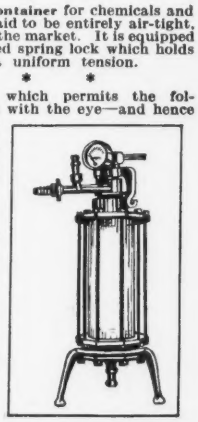
A new and powerful germicide and antiseptic, an alkyl derivative of meta cresol and resembling thymol in odor and taste, is now manufactured. It is said to be particularly active against pyogenic bacteria.

* * *

A new stoneware container for chemicals and reagents, which is said to be entirely air-tight, has been placed on the market. It is equipped with a new patented spring lock which holds the cover under a uniform tension.

* * *

A glass autoclave, which permits the following of reactions with the eye—and hence controlling them under high pressure and temperature—has been developed by several German doctors. The illustration shows the glass autoclave which has a capacity of 750 cc., is air-tight, fitted with safety valve, manometer, etc. It may be heated internally by electricity or by a transparent fluid which is circulated around the autoclave within a copper jacket fitted with windows for observation.



U.S. INDUSTRIAL ALCOHOL CO.

WORLD'S LARGEST PRODUCERS OF INDUSTRIAL ALCOHOL

ETHYL ALCOHOL

SPECIALLY DENATURED-*All Formulas* • COMPLETELY DENATURED-*All Formulas* • ANHYDROUS-*Denatured* • ABSOLUTE-*Pure*

SOLOX-*The General Solvent* • PYRO-*The Standard Anti-Freeze*

PURE (190 PROOF) TAX PAID — TAX FREE

U. S. I.—U. S. P.-*Ethyl* • WEBB'S-*Ethyl* • SUNSHINE-*Grain* • GREENDALE-*Grain* • SUNSHINE-*Ethyl*

Executive Offices: 60 East 42nd Street, New York, N. Y. Branches in all Principal Cities.

News

People

Meier-Arner Manager

Arthur J. Meier has become general manager of the Arner Co., Inc., Buffalo, succeeding the late William H. Bomka. In addition to being general manager of the Arner Co., he will fill the same post for the Arner Co., Ltd., Fort Erie, North Ontario, Canada.

A graduate from the University of Michigan in 1907, Mr. Meir took a post-graduate course in Physiology, Bacteriology and Food and Drug Analysis at the same university in 1908.

A. J. Meier

For four years, he was in charge of the production laboratory checkup of all fluid preparations for a well-known pharmaceutical manufacturer. For the same house, he also filled a position as analytical chemist.

From 1911 to 1912, he was manager for Digestive Ferments Co., Chicago, and from the latter year until 1915, was research chemist for the same house. From 1915 to 1932, eighteen years, Mr. Meier devoted his energies to business administration in the retail field.

Coutlee Joins Merck

Douglas Wakefield Coutlee has been appointed director of advertising of Merck & Co., Inc., with headquarters at the company's offices in New York. For the past three years, he has been associated with E. R. Squibb & Sons.

Sid Klein Opens Business

Sid Klein, former vice-president of the U. S. Industrial Alcohol Co., has formed as of August 1, the Sid Klein Corp., with offices at 347 Madison avenue, New York. The new corporation will deal in warehouse certificates covering spirits in bond. The telephone number of the company is Vanderbilt 3-1380.

Pinaud Appoints Olson & Duvoisin

L. W. Olson is now in charge of sales and J. Duvoisin in charge of advertising for Pinaud, Inc., New York.

R. Davison Elected

R. Davison, manager of the market development division of the New Jersey Zinc Co., New York, has been elected second vice-president of the National Industrial Advertisers' Association.

F. H. Ungerer Returns

F. H. Ungerer, president, Ungerer & Co., New York, returned during the latter part of July from an extended European trip during which he visited Charabot & Co., at Grasse, France, and M. Naef & Co., at Geneva, Switzerland. Ungerer & Co. is the sole American representative of both these companies.

F. H. Ungerer

Lund on NRA Board

Robert L. Lund, president, Lambert Pharmacal Co., St. Louis, has been appointed to the Industrial Advisory Board of the National Recovery Administration.

Dr. Thorp Joins Commerce Dept.

Dr. Willard L. Thorp, formerly professor of economics at Amherst College, has been appointed director of the Bureau of Foreign and Domestic Commerce of the Department of Commerce.

G. F. Smith, Ass't. to J. & J. President

George F. Smith, formerly general sales manager, J. A. Tumbler Laboratories, Inc., Baltimore, has been appointed assistant to the president of Johnson & Johnson, Inc., New Brunswick, N. J.

Keho-Lesquendien Manager

Joe Keho has been made general manager of Lesquendieu, Inc., New York.

Eden Appoints Byrne Bauer

Byrne Bauer has been appointed advertising manager of the House of Eden, Inc., New York. A new campaign on the company's liquid dry shampoo is being prepared.

Doolittle Heads Rotary

Addington Doolittle, president, Compagnie Parento, Inc., Croton-on-Hudson, N. Y., has been elected president of the Croton-on-Hudson Rotary Club.

Edward Plaut Marries

Edward Plaut, president of the Lehn & Fink Products Co., New York, was married recently in Cannes, France, to Mrs. Alexandra Stewart Plankinton, of Milwaukee, widow of William Woods Plankinton, whose forebears were the founders of Milwaukee.

Edward Plaut

Lucky Louise

Louise Warren, daughter of Northam Warren, was the winner of a Ford 8 Sedan raffled July 29, at the Seashore Fete held at Brightwaters, N. Y., for the benefit of the South Side Hospital, Bay Shore, N. Y. Miss Warren, who recently obtained a junior operator's license, summers with her family at Sayville, N. Y.

Richard Brooks DuBoff

Mr. and Mrs. George DuBoff have announced the birth of a son, Richard Brooks, born on July 25. Mr. DuBoff is manager of the Art Tube Co., Irvington, New Jersey.

Piercy Joins Chaleyer

C. G. Piercy, for many years associated with the manufacturing drug trade in a sales and merchandising capacity, is now with Ph. Chaleyer, Inc., New York, in charge of sales.

Kelly Returns

Robert C. Kelly, vice-president, John Powell & Co., Inc., New York, has returned from a business trip through New England, Canada and the Middle West."

H. O. Fox to Coast

H. O. Fox, of the Dow Chemical Co., Midland, Mich., has been transferred to Long Beach, Calif., where he is now associated with the Jones Chemical Co., an affiliate of the Dow Chemical Co.

Spurrier Buys Drug Bulletin

J. D. Spurrier, of Cleveland, has purchased "*Drug Bulletin*," founded in 1879, from E. D. Irvine of Chicago, and has moved the offices of the publication from Chicago to 1215 West Third st., Cleveland.

Mr. Spurrier entered the drug field actively in 1927 as assistant to the president of Frederick Stearns & Co., Detroit, in charge of sales and advertising. Since 1930 Mr. Spurrier has maintained, as sales consultant, offices in Cleveland serving as sales and merchandising adviser to the Mutual Drug Co., Cleveland, Ure Druggist, Inc. and associated houses.

Companies

Squibb Changes Sales Officials

In line with the recent announcement, made by E. R. Squibb & Sons, of the election of R. D. Keim to the office of vice-president-director of sales and the naming of Joseph C. Hearn as his successor as general sales manager, a number of other changes in the sales department have become effective. With one exception they concern former well-known members of that department.

S. H. Conover, formerly assistant general sales manager, will manage the newly-created Hospital Department which will handle the sales and distribution of all Squibb products to hospitals and other institutions.

L. H. Ashe, in addition to his responsibilities as chief of the professional service department, will have charge of the sales as well as the promotion of all of the Squibb Professional Vitamin Products which include Adex Tablets, Vitavose Products, Viosterol in Oil—250D and Halibut-Liver Oil Products.

George S. Jay, formerly assistant to the general sales manager, becomes sales manager of the Petrolatum and Cod-Liver Oil Products Division. He will continue to represent the company in its relations with the wholesale drug trade.

Ray J. Comyns, formerly assistant to the general sales manager, becomes sales manager of the home necessities division.

J. J. Toohy, assistant secretary of the Squibb Plan, Inc., and formerly supervisor of branches, becomes assistant to the general sales manager. Karl Emans becomes supervisor of branches.

Fred L. Black, a new member of the Squibb organization, becomes assistant to the executive vice-president, department of advertising.

Metz Defends "Pyramidon"

For some time the public has been defrauded by sales of spurious "Pyramidon" by some so-called "drug jobbers" and by peddlers and unscrupulous druggists. An investigation by the H. A. Metz Laboratories, Inc., the owner of the trade-mark, disclosed that on calls for "Pyramidon" these druggists were passing off amidopyrine manufactured by other concerns than the Metz Laboratories, packed in tubes marked "Pyramidon," and bearing pink labels similar to the pink labels used by the Metz Laboratories for more than thirty years. To stamp out this fraudulent practice, the Metz Laboratories, about a year ago, selected thirty-five so-called "drug jobbers," peddlers and druggists who were the most flagrant offenders and commenced an action against them to restrain them from palming off spurious "Pyramidon." The Metz Laboratories, at that time, through their counsel Louis Boehm, made a motion before Judge Isidor Wasservogel of the New York Supreme Court for an injunction restraining these so-called "drug-jobbers" and druggists until the trial from passing off spurious "Pyramidon." This was the first motion ever made in an action of this nature against numerous defendants. Judge Wasservogel granted the motion, and directed an injunction issue against all the defendants until the trial.

Thereafter, most of the so-called "drug jobbers", voluntarily consented to injunctions and were required to pay the costs of the action. As against the druggists, however, the Metz Laboratories, which has always cooperated with the retail drug trade, waived costs for the reason that it felt that these druggists may have been imposed upon by the so-called "jobbers," and that because of the depression it would be a hardship upon them to require them to pay these costs.

Last week the case against the so-called "drug jobbers" and druggists who had not voluntarily consented to injunctions came on for trial. Two of these "jobbers," each of whom was represented by separate counsel, defended the action. The case was heard by Mr. Justice Albert Cohn of the New York Supreme Court. At the conclusion of the trial, Judge Cohn immediately granted a permanent injunction against each defendant, with costs. He held that "Pyramidon is a valid trademark and the exclusive property of the Metz Laboratories; that the pink label used by Metz identifies its brand of amidopyrine, and he issued an injunction restraining the defendants from using pink labels in connection with the sale of amidopyrine, and also from using the script type in which the trademark "Pyramidon" is printed on the Metz Labels.

Calco Buys E. C. Klipstein

Calco Chemical Co., Bound Brook, N.J., has purchased the plant and business of E. C. Klipstein and Sons Co., South Charleston, W. Va., which it has heretofore represented in the sale of dyestuffs. Ernest and Kenneth Klipstein are expected to become associated with the Calco organization, which is a subsidiary of the American Cyanamid Co., this city.

Tailby-Nason Aids Byrd

Tailby-Nason Co., Cambridge, Mass., has shipped eight barrels of "Nason's Cod Liver Oil" to Norway to be made up into biscuits to be fed to the sled dogs on the coming expedition of Admiral Richard E. Byrd to the Antarctic.

Northam Warren Stablizing Prices

Northam Warren Sales Co., Inc., New York, adopted a new policy of price stabilization as of August 1. A letter announcing this policy was sent to retailers together with a new price list giving new wholesale prices, full retail prices, and suggested minimum retail prices.

Revson Appoints Leser

R. F. Revson & Co., New York, has announced the appointment of J. W. Leser & Co., 1001 E. First st., Los Angeles, as Pacific Coast Representative.

Whelan Stores to Reorganize

Retail Chemists Corp., formerly the Whelan Drug Co., is to be acquired, together with other subsidiaries of the United Cigar Stores Co., by a reorganized corporation, with the latter name, which will be capitalized with 1,100,000 shares of common stock.

Lehn & Fink Sales Agency

Lehn & Fink, Inc., announces the appointment of the Clancey Sales Organization of Dallas, Tex., as its sales agency for the entire southwest. This will include Texas, New Mexico, Louisiana, Arkansas, Oklahoma, Colorado, Mississippi, the western part of Tennessee, the southern part of Kansas, the southwestern part of Missouri and a small section of Wyoming.

Dreyer Appoints Dill

P. R. Dreyer, Inc., New York, has announced the appointment of Marshall Dill as its representative on the Pacific Coast. This concern is said to be well known in that territory having offices in the following cities: San Francisco, Los Angeles, Portland, Ore., and Seattle.

Vitamin Experts Say

ISDAHL'S
COD LIVER OIL

has the highest vitamin potency!

Above: The Old Method

Right: The New Method

Vitamin experts have long known the injurious effect which exposure to air has on Vitamin A potency.

To avoid all contact with air, to prevent the devastating effect of oxidation on Vitamin A during refining, Isdahl & Co. have perfected a new process—the vacuum process—which preserves to the fullest degree known the potency of Vitamin A.

For 75 years Isdahl's Cod Liver Oil has had an international reputation for purity. Now, refined under a new process, preserving the fullest vitamin potency, pure, odorless, tasteless,—Isdahl's Medicinal Cod Liver Oil sets a new standard for this essential product.

May we send you a sample?

ISDAHL & CO. A/S

BERGEN · · · NORWAY

McKESSON & ROBBINS, INC. 79 CLIFF STREET NEW YORK, N. Y.

Squibb Fellowship

E. R. Squibb & Sons has renewed for a year, to July 1, 1934, the research fellowship which it has maintained at Mellon Institute, Pittsburgh, since 1922. For the most part, this investigation work has been concerned with the development of new medicinal preparations; in addition, the fellowship has been collaborating with specialists on the faculty of the School of Dentistry of the University of Pittsburgh in studies of dental therapeutic agents.

In the continuance of this program of pharmaceutical research, Dr. Harold William Coles has been appointed to the incumbency of the Squibb fellowship. Dr. Coles, who received his professional education at Syracuse University (B.S., 1923) and at the Iowa State College (M.S., 1926; Ph.D., 1927), is a specialist in the pharmacology and physiology of local anesthetics. He has also contributed to the literature of the chemistry and fermentation of sugar derivatives, organic antimony compounds, and ephedrine intermediates. Prior to joining Mellon Institute, he was for six years engaged in organic research in the pharmaceutical field.

In connection with the investigations of the Squibb fellowship, as they will relate to the field of dentistry, Dr. H. Edmund Friesell, dean of the School of Dentistry of the University of Pittsburgh, will continue to act as one of the fellowship advisers. Dr. Friesell has served in this capacity for over ten years, participating actively in the fellowship's studies in the province of fundamental dental medicine.

Parfums Marly to be Analyzed

Les Parfums Marly has engaged Matthiessen & Co., New York, sales and management consultants, to analyze the Marly business.

Paris Medicine Cooperates

Paris Medicine Co., St. Louis, has adopted a 35-hour week. Working hours for both office and factory are now from 8.30 A. M. to 4 P. M., five days a week. With a present office and factory personnel of 113 people, the new program will call for an increase of 8% in help and an increase of 27½% in the hourly wage rate.

Scholl Raises Wages

Scholl Mfg. Co. Inc., Chicago, raised the wages of its entire factory staff 10%—on July 21st.

New Gutmann Service

Ferdinand Gutmann & Co., Brooklyn, announces a new service to can manufacturers and users for supplying can nozzles complete with C. T. screw caps to provide a combination of nozzle and cap which leads to a much improved sealing condition, with greater ease in removal of cap from the can, maintaining the necessary seal and reseal advantages. Type "J" FILMA-SEAL, (Patented 1933) for use on cans, makes a seal that prevents leakage and evaporation and guards against counterfeiting, giving the consumer a much needed protection. Standard sizes for varnish, polish and cleaning fluid cans, etc. are available for prompt shipment.

Ginger Jake Bootleggers Fined

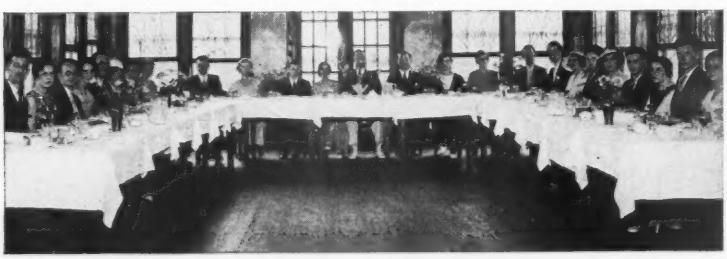
Harry Lesser and Forrest E. James, ginger "jake" bootleggers, must pay fines of $2,500 each and serve 20 months in jail and Philip M. Lahn, another member of the ring, will go to prison for 17 months, all for conspiracy to violate the Federal food and drugs act. The Circuit Court of Appeals recently affirmed their conviction rendered by a jury in the Federal Court, Brooklyn, N. Y., December 30, 1932.

Parento Honors Associates

Compagnie Parento, Inc., Croton-on-Hudson, N. Y., honored five associates for their services with the company at a dinner at Moto's Inn, Croton-on-Hudson, on Friday, July 28th.

Addington Doolittle, president of Compagnie Parento, welcomed the guests and acted as master of ceremonies during the evening. After dinner suitable presentations were made to D. E. Picciano, vice-president, E. C. Barton, manager of the Toronto plant, B. A. Acker, auditor, A. H. Hellmers, and R. L. Emeny, in recognition of their years of service with the company.

The evening was concluded with a theatre party at the Beachwood Theatre, Scarborough, where the Hudson Players presented the premiere of "Never Tight, Never Tender."



Compagnie Parento does honor

New Products

VELRAY COSMETICS

Velray, Inc., New York, plans to introduce a line of perfumes and dusting powders. President of the company is Albert Rolls, formerly of Storfer Laboratories, while the secretary treasurer is A. Appleman, formerly with Ray Sales Co.

MOSBY'S INDOVIN

Gilbert H. Mosby, formerly of Konjola, who recently marketed the new "A to Z" antiseptic, has announced the addition of a tonic, "Indovin," to his line. He plans to package the new product in large, unique bottles of cylinder shape which will be topped by a measuring cup.

VOO

Cosmetic Laboratories, Inc., St. Louis, has introduced a new depilatory, "Voo." Edward J. O'Connor, former vice-president, Affiliated Products Co., and now president, Beatrice Mabie, is heading the company. Associated with him are R. F. Anthony, formerly of Hannibal Pharmacal Co., Neet, Inc., and Louis Phillippe, Inc., and J. F. Brockland, formerly with Hannibal Pharmacal Co.

FULLER TOOTH POWDER

Fuller Brush Co., Hartford, Conn., is planning to manufacture a tooth powder to be sold with Fuller Tooth Brushes.

BARBASOL BLADES

The Barbasol Co., Indianapolis, manufacturer of "Barbasol" brushless shaving cream, has added a Barbasol razor and razor blades to its line. The new blades are double-edged slotted blades. They are sold in packages of two and packages of five, the former retailing for ten cents and the latter for twenty-five cents.

Removals

AROMEL CORP.

Aromel Corp., New York, perfumes and atomizers, has announced its removal to 724 Fifth ave., that city.

VAN DYK & CO.

Van Dyk & Co., Inc., has announced the removal of its office from 50 West 17 st., New York, to the main office and factory at 57 Wilkinson ave., Jersey City, N. J.

PREMIER LABORATORIES

Premier Laboratories, Inc., cosmetics, has announced the removal of its factory and executive offices to larger quarters at 26 East Front st., Trenton, N. J.

The newly elected officers of the corporation are H. W. Singer, president, in charge of sales, and F. W. Bierig, vice-president, in charge of production. The latter has been connected with Merck & Co. since his arrival in this country from Germany five years ago.

The Quality of
Powco Products - - - -

Tested Persian Quince Seed

There can be only one way to buy Quince Seed!

That is on the basis of the *quantity* and *quality* of the mucilaginous content.

It is important to be sure that your seed is from a country of origin producing uniformly fine seed; it is important to make sure that the seed is clean, free from mould and insect infestation.

But your hair wave preparation and hand lotions are made, not from seed, but from the mucilaginous content of the seed.

Buy on the basis of mucilaginous content. Test for quantity and quality. A simple test which we have devised and which is now widely used will be submitted upon request.

Buy the Economical Way!

Send for a sample and compare.

The ultimate fate of any finished product depends upon the character of raw materials entering into its manufacture.

NEUTRAL POWDERED SOAPS

Powco Brand Soaps for your dentifrices and other toilet preparations are laboratory controlled, guaranteeing uniformity of purity, chemical constants and physical characteristics.

CONCENTRATED SHAVING CREAM BASE

A perfected, fool-proof, concentrated product affording a medium for manufacturing an efficient finished shaving cream most economically and most expediently.

POWCO BRAND REG. U.S. PAT. OFF

JOHN POWELL & CO., Inc.

144 East 32nd Street

New York. N. Y.

A. M. A. Accepts

COLLOIDAL MERCURY

Solution Colloidal Mercury Sulfide-Hille, manufactured by Hille Laboratories, Inc., Chicago.

ANTIPNEUMOCOCCUS SERUM

Antipneumococcus Serum, manufactured by Parke, Davis & Co., Detroit.

A. M. A. Rejects

DOCTOR'S PRESCRIPTION POWDER

Doctor's Prescription Powder, marketed by the Dermic Laboratories, New York, because it is an unnecessarily complex mixture marketed under a noninforming name with no statement of composition and with unwarranted and exaggerated therapeutic claims.

HOSEPT

Hosept, marketed by Homer Laboratories, Inc., because it is marketed with unwarranted claims under an uninforming name and because it is an unscientific mixture containing an excessive number of ingredients recommended for use in practically ineffective concentration.

KONDREMUL

Kondremul, manufactured by E. L. Patch Co., because the products have not sufficient originality to justify the use of the proprietary and uninforming name of Kondremul.

HOSAL AND BROMHOSAL

Hosal and Bromhosal, manufactured by Abbott Laboratories, because the first is a preparation of semisecret composition marketed with misleading and unwarranted claims; because the latter is a preparation of semisecret composition marketed with misleading and unwarranted claims as a potentially dangerous substitute for bromide therapy with the entirely adequate official preparations.

LA MERCY WATER

La Mercy Mineral Water, marketed by McKesson & Robbins, Inc., because of lack of acceptable convincing evidence for its therapeutic value in the conditions for which its use is proposed.

REX-ORCIN

Rex-Orcin, marketed by Amp Research Laboratories Corona, L. I., because it is an unnecessarily complex and unscientific mixture marketed under an unacceptable proprietary name, with unwarranted therapeutic claims, and in such a manner as to lead to its ill advised use by the public.

New Wood Flour Maker

Lumber Bi-Products, Inc., Buffalo, N. Y., has established a wood flour division. M. J. Watson is president of the company. Samples of the flour may be had upon request to the company.

Parke Davis Defends Mark

Parke, Davis & Co., Detroit, has succeeded in preventing the Sandoz Chemical Works, New York, from registering "Ergotamin" as a trade-mark for alkaloids of ergot, the Commissioner of Patents having sustained the opposition of Parke, Davis & Co.

It was shown that prior to 1920 the process of extracting alkaloids of ergot was discovered in Switzerland by Dr. Arthur Stoll, who referred to them as ergotamines. Some were shipped to this country under that name and the word was frequently used in scientific literature in the United States. In patents issued to Stoll and the Sandoz company in England in 1918 and the United States in 1922, ergotamine was used as the scientific and descriptive name of these alkaloids. It was also shown that the word "amine" has a definite chemical meaning, and that chemists do not distinguish between words with or without a final "e."

The commissioner upheld the contention of Parke, Davis & Co. that if the trade-mark registration were allowed it would become a prima facie infringer in selling these compounds under their true descriptive names.

Valerian Sale Restricted

Aimed as a curb on racketeering the Board of Health of the City of New York has placed the sale of valerian or valerianate and all its derivatives under strict control, and no person other than a physician, veterinarian or pharmacist is permitted to sell the drug in that city. While valerian and its derivatives are widely used in medicine as a sedative, it recently has been adopted by gangsters and racketeers for use in stench bombs. The action of the Board of Health was taken at the request of the Police Department.

Under the new regulation valerian or valeriante and all its derivatives may be sold now only on prescription by duly licensed physicians and veterinarians. All manufacturers of the drug, or any proprietary medicine in which it is used, must state the specific amount of the drug contained in each container or in each package of medicine.

These manufacturers, as well as dispensing pharmacists, must keep a complete record of all valerian or valerianate or any of its derivatives; that is, the amount manufactured, the amount used in medicine and the name of the person to whom it is sold.

Associations

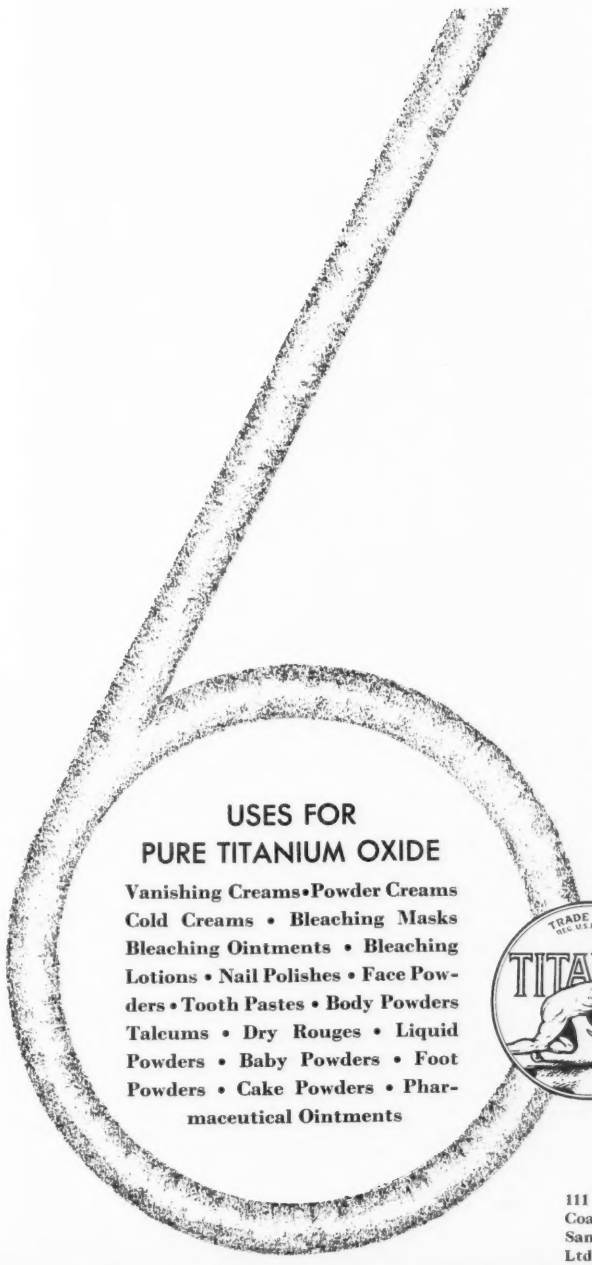
Drug Institute Council

The Drug Institute of America, Inc., has made public a partial list of members of the Council of the Institute, composed of manufacturers, wholesalers, retailers and representatives of chain store organizations and including also deans of colleges of pharmacy. Due to absences caused by vacations, the full membership of 200 has not been completed but will be available for announcement soon. The list of manufacturer and wholesaler council members as it is composed to date follows:

Manufacturers: Oscar W. Smith, Parke, Davis & Co., Detroit; S. DeWitt Clough, Abbott Laboratories, North Chicago; R. A. Whidden, Bauer & Black, Chicago; Dr. A. C. Boylston, Mallinckrodt Chemical Works, St. Louis; E. H. Cone, The S. S. S. Co., Atlanta; R. D. Kein, E. R. Squibb & Sons, New York; Harlow P. Roberts, The Pepsodent Co., Chicago; E. K. Hyde, Mentholatum Co., Wichita, Kansas; John G. Searle, C. D. Searle & Co., Chicago; Geo. L. Genz, Parke, Davis & Co., Detroit; W. G. Peckham, Norwich Pharmacal Co., Norwich, N. Y.; H. C. Richardson, Vick Chemical Co., Greensboro, N. C.; William E. Levis, Owens-Illinois Glass Co., Toledo; Z. C. Patten, The Chattanooga Medicine Co., Chattanooga; A. J. Horlick, Horlick's Malted Milk Corp., Racine, Wis.; Gerard Lambert, Gillette Safety Razor Co., Boston; J. M. Ewing, Ligonier, Pa.; J. R. Jackson, W. T. Rawleigh Co., Freeport, Ill.; Henry P. Bristol, Bristol-Myers Co., New York; Charles L. Huisking, Charles Huisking Co., New York; Theodore Strong, Strong, Cobb & Co., Cleveland; L. N. Upjohn, The Upjohn Co., Kalamazoo, Mich.; S. B. Penick, S. B. Penick & Co., New York; P. C. Magnus, Magnus, Maybee & Reynard, Inc., New York; F. A. Blair, The Centaur Co., New York; Ellery W. Mann, Zonite Sales Corp., New York; J. F. Scanlon, Coty, Inc., New York; F. H. Bedford, Jr., Stanco Distributors, Inc., New York; A. H. Disbold, Drug Inc., New York; Wm. G. Mennen, The Mennen Co., Newark, N. J.; J. L. Tiffany, Lederle Laboratories, New York; Glenn Haskell, U. S. Industrial Alcohol Co., New York; L. K. Liggett, United Drug Co., Boston.

Wholesalers: Carl F. G. Meyer, Meyer Bros. Drug Co., St. Louis; H. H. Robinson, The Henry B. Gilpin Co., Baltimore; A. J. Geer, The Geer Drug Co., Charleston, S. C.; W. W. Ochse, San Antonio Drug Co., San Antonio; B. B. Gilmer, McKesson-Southern Drug Co., Houston; J. M. Penland, Southwestern Drug Corp., Dallas; H. D. Faxon, McKesson-Faxon Drug Co., Kansas City; John C. Davis, Davis Bros. Drug Co., Denver; M. E. Sherman, Des Moines Drug Co., Des Moines; George A. Moehle, Milwaukee Drug Co., Milwaukee; Lee Wilson Hutchins, Hazeltine & Perkins Drug Co., Grand Rapids; Henry J. Frank, Blaumauer-Frank Drug Co., Portland, Ore.; W. W. Gibson, McKesson-Gibson-Snow, Inc., Albany, N. Y.; G. H. Kauffman, Kauffman Lattimer Co., Columbus, Ohio; O. J. Cloughly, St. Louis Drug Co., St. Louis; J. J. Dreyer, New Jersey Wholesale Drug Co., Newark, N. J.

Quality toilet preparations now use this milder pigment



USES FOR PURE TITANIUM OXIDE

Vanishing Creams • Powder Creams Cold Creams • Bleaching Masks Bleaching Ointments • Bleaching Lotions • Nail Polishes • Face Powders • Tooth Pastes • Body Powders Talcums • Dry Rouges • Liquid Powders • Baby Powders • Foot Powders • Cake Powders • Pharmaceutical Ointments

● Pure Titanium Oxide definitely has won a place as an accepted ingredient in high-grade cosmetics. This pure white opaque pigment has the following desirable characteristics: (1) chemical inertness and stability; (2) exceptionally fine and uniform particle size; (3) high neutral whiteness; (4) excellent tinting strength and covering power. ● Properties such as chemical inertness and stability have influenced manufacturers to adopt Pure Titanium Oxide in place of previously used pigments in the preparation of vanishing creams, face powders, compacts, powder bases and other widely used preparations. Pure Titanium Oxide will not react with other ingredients of the formula and cause chemical changes in the product. It will not increase alkalinity or acidity. It is an absolutely harmless inert pigment of high purity and uniformity manufactured under careful laboratory supervision. ● The exceptional brightness and opacity of Pure Titanium Oxide render it valuable for improving the appearance of cosmetic preparations...for masking undesirable shades such as yellowish colors of calcium carbonate in tooth pastes. ● Titanox-B (barium base) is another pigment that has wide application in the cosmetic industry. ● Ask us to send you helpful information on Titanox pigments.

TRADE MARK REG. U.S. PAT. OFF. TITANOX

TITANOX

TITANIUM PIGMENT COMPANY, INC.

Manufacturers of . . . TITANOX-B (Barium Base)
TITANOX-C (Calcium Base)...PURE TITANIUM OXIDE

111 Broadway, New York, N. Y.; Carondelet Station, St. Louis, Mo.; Pacific Coast Distributor: National Lead Company of California, 2240 24th Street, San Francisco, California; Canadian Distributor: Wilson, Paterson, Gifford, Ltd., 101 Murray Street, Montreal—132 St. Helen's Avenue, Toronto, Ontario.

Drug Institute Names Secretary

The Drug Institute of America, Inc., has announced the appointment as secretary of H. Lawrence Groves, who for the past 3½ years has been Commercial Attache at the United States Embassy in Berlin. He was graduated from Harvard in the Class of 1912, and for a number of years after his graduation was assoicated with the International Harvester Co. in Chicago. He later entered Government service in the Department of Commerce and has traveled widely in this country and abroad.

Chemical Alliance Revived

The Chemical Alliance originally formed in 1918 to carry on the work of the chemical committee of the National Council of Defense has been revived with the idea of co-ordinating the various divisions of the chemical industry for consideration of fundamental problems in connection with the National Industrial Recovery Act.

The membership fee is $10 per year and all chemical manufacturers are invited to join the alliance. Those wishing to join the organization are requested to communicate with W. B. Bell, head of the American Cyanamid Co., at 535 Fifth Avenue, New York City.

The officers of the alliance are president, W. B. Bell, of the American Cyanamid Co.; vice-presidents, Lammont duPont, of E. I. duPont de Nemours & Co.; Orlando Webber, of the Allied Chemical & Dye Corp.; Charles Belknap, of the Monsanto Chemical Co., and Willard H. Dow, of the Dow Chemical Co.; treasurer, J. W. McLaughlin, of the Carbide & Carbon Chemicals Corp.; secretary, Warren N. Watson.

In addition to the officers, some of the other members of the board of directors are: Peter Dougan, Merck & Co.; C. P. Gulick, National Oil Products Co.; A. K. Hamilton, Franco-American Chemical Works; Glenn Haskell, U. S. Industrial Alcohol Co.; George W. Merck, Merck & Co.; Edgar Queeny, Monsanto Chemical Co.; F. W. Russe, Mallinckrodt Chemical Works; and W. D. Ticknor, Commercial Solvents Corp.

Chemical Code

The Chemical Alliance has drawn up a code for approval by official enforcing the National Recovery Act. This code covers only provisions for improved conditions of labor and for enforcement of the code. The hours for labor are set at 40 hours per week, with a minimum pay of 40 cents per hour. This also includes office and clerical help, which, if paid on a weekly basis, must not receive less than 40 cents per hour. Exceptions are made in the case of those positions which were paid less than 40 cents per hour on July 15, 1929, which positions or employees shall be paid not less than the wage they were paid on July 15, 1929.

Apprentices shall receive not less than 80 per cent of the full wage, and no one shall continue at the apprentice wage for more than one year. Minimum wages for watchmen, gatemen, etc. shall be five cents per hour less than the minimum wage provided.

Ten per cent excess working time per week for there months in one year is permitted in the case of repairman, engineers, electricians, loaders, truck drivers, cleaners, and watchmen. Exceptions are also made for emergencies and continuous operations where sufficient labor cannot be obtained.

Chemical Specialty Association

The National Association of Chemical Specialty Manufacturers has been formed as a non-profit membership association to provide for firms in that general industry under the National Industrial Recovery Act.

A general code for the industry has been drafted by a committee and copies are available for firms interested upon application to the Association at 305 Washington st., Brooklyn. It is hoped to have the general code approved and in effect about September 1st, with sub-codes for many divisions of the field such as alkaline cleansers, cleaning solvents, plumbing specialties, household ammonia, furniture polish, automobile polish, metal polish, soap specialties, wax products, adhesives, inks, shoe specialties, greases and special lubricants, miscellaneous automotive specialties and miscellaneous household specialties to follow as rapidly as possible. The sub-codes include provisions to take into account conditions peculiar to the manufacture and distribution of each group.

A. Ph. A. Meeting

The American Pharmaceutical Association will hold its eighty-first annual meeting August 28 to September 2 in Madison, Wis.

During the same week meetings will be held at the same place by the National Association of Boards of Pharmacy, and the American Association of Colleges of Pharmacy.

Read to Direct Courses

W. T. Read, Dean of the School of Chemistry, of Rutgers University, will direct the program of student courses at the Fourteenth Exposition of Chemical Industries. Professor Read, who is a member of the Exposition Advisory Committee, has been Chairman of these courses at previous expositions. Prior to his association with Rutgers University, he was Professor of Chemical Engineering at the Texas Technological College.

This year's exposition, known as the Fourteenth Exposition of Chemical Industries, will take place in Grand Central Palace, New York, December 4th to 9th, 1933.

Drug, Inc. Dissolution

Dissolution of Drug, Inc., and the segration of its property into five new corporations, was approved August 7, by stockholders. No stock, it was announced, was voted against the reorganization plan, which had been recommended by the directors last June.

Drug, Inc., will file a certificate of dissolution and five new corporations will be created under Delaware laws. The new concerns will be organized with substantially the following names and capitalization:

Sterling Products, Inc., 1,750,700 shares of $10 par value; United Drug Corp., 1,400,560 shares, $5 par value; Vick Chemical Corp., 700,280, $5 par value; Bristol-Myers Corp., 700,280, $5 par value; Life Savers Corp., 350,140 shares, $5 par value.

Under the plan of dissolution announced on June 30 by the directors of Drug, Inc., a holder of ten shares of Drug will receive five shares of Sterling Products, Inc., four of United Drug Corp., two of Vick Chemical Corp., two of Bristol-Myers Corp., and one of Life Savers Corp.

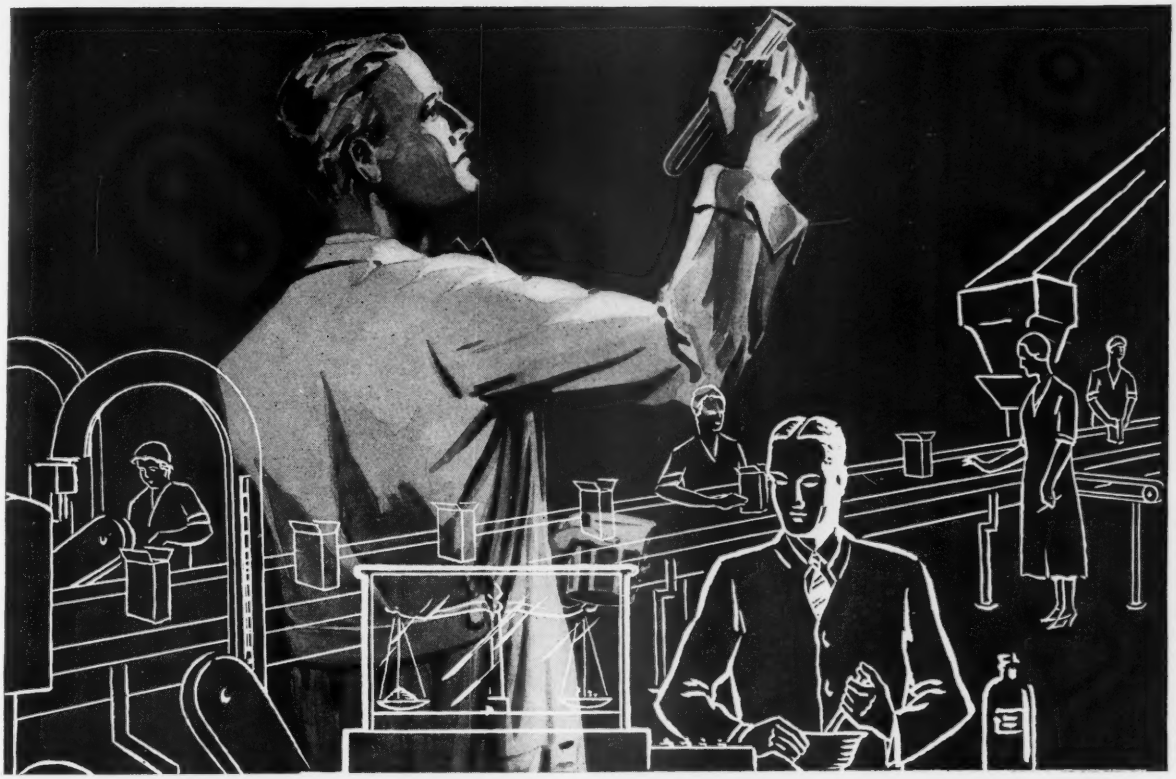
At the time of the announcement of the plan it was explained that the managements of the new corporations would include the executives now respectively conducting the existing units. It was stated also that working capital of the various units would be adequate to enable them to carry on these businesses.

A schedule of the earnings of the constituent companies of Drug, Inc., in 1932, and the equivalent earnings for each share of each independent company resulting from the proposed segregation of the properties, was issued July 20 on behalf of the company. The company also gave out separate balance sheets for five of the companies, giving effect to the allocation of assets.

The income account of the Sterling Products, Inc., group shows net income of $9,348,314, equal to $5.34 a share earned on 1,750,700 shares to be outstanding on consummation of the plan. Total assets are $19,642,679. Current assets are $21,407,218, including $13,690,444 cash and marketable securities, and current liabilities are $3,430,728. Net worth, representing capital stock, surplus and reserves, is $14,213,140.

Bristol-Myers Co. and Mum Manufacturing Co., Inc., had net profits of $2,447,130, or $3.49 a share on 700,280 shares. Total assets are $7,704,007. Current assets are $4,393,420, including $3,108,637 cash and marketable securities, and current liabilities are $654,339. Net worth is $6,570,596.

Vick Chemical Co. had net profits of $2,625,761, equal to $3.75 a share on 700,280 shares. Total assets are $7,626,533. Current assets are $7,123,297, including $4,728,645 cash and marketable securities, and current liabilities are $1,192,557. Net worth is $5,509,176.



Pharmaceutical and Drug Manufacturers Appreciate the High Quality Standards of Baker's SODIUM HYDROXIDE POTASSIUM HYDROXIDE

Baker's Sodium Hydroxide and Baker's Potassium Hydroxide are always pure white and extremely low in heavy metals.

Because of their very low index of impurity items, such as chloride, sulphate, phosphate, nitrogen, iron, silica and aluminum, leading pharmaceutical and drug manufacturers invariably choose these well known Baker Chemicals.

Outside the drug field Baker's Sodium Hydroxide also has a fine following. Ink manufacturers, refiners of petroleum, vegetable oils and numerous other industries appreciate Baker's dependable quality standards.

Baker's Sodium Hydroxide is supplied in C. P. Sticks, U. S. P. Sticks, C. P. Pellets and Purified Flakes, Baker's Potassium Hydroxide, C. P. Sticks, U. S. P. Sticks, C. P. Pellets and U. S. P. Granular. If you use either of these chemicals let Baker quote you on your requirements. Baker's high quality standards are offered at no price premium.

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Acid Carbolic USP Fused Crystal
Acid Citric USP Crystal, Granular or Powder
Acid Salicylic USP Crystal and Powder
Ammonium Bromide USP Granular
Bismuth Metal C.P. Lump 99.8%
Bismuth Metal C.P. Granular 99.8%
Bismuth Nitrate C.P. Crystal and Purif. Crystal
Bismuth Subcarbonate USP Powder
Bismuth Subgallate USP Powder
Bismuth Subnitrate USP Light Powder
Iodine USP Resublimed
Lead Acetate USP Crystal and Powder
Lead Acetate Tech. Crystal
Lead Acetate C.P.Basic Dry Powder
Magnesium Oxide USP Light Powder
Potassium Bitartrate USP Pow. (Cream of Tartar)
Potassium Bromide USP Cryst., Gran. or Powder
Potassium Hydroxide USP Sticks
Potassium Iodide USP Cryst., Gran. or Powder
Silver Nitrate USP Crystal
Silver Bromide USP Granular
Sodium Bromide USP Powdered
Sodium Hydroxide USP Sticks (Caustic Soda)
Sodium Potassium Tartrate USP Cryst. or Powd.
Sodium Salicylate USP

MANUFACTURERS OF
"Baker's Analyzed"
C. P. CHEMICALS AND ACIDS

Life Savers, Inc., and Pine Brothers, Inc., net profit was $885,257, equal to $2.53 a share on 350,150 shares. Total assets are $3,824,027. Current assets are $2,423,912, including $1,978,577 cash and marketable securities and current liabilities are $473,883. Net worth is $3,216,353.

United Drug Co., excluding the Louis K. Liggett Co., in bankruptcy, had net loss of $2,451,437. It will have 1,400,560 shares outstanding upon consummation of the plan. Figures are adjusted to reflect the sale in May, 1933, of stock of Boot's Pure Drug Co. Total assets are $54,994,121 and current assets are $30,842,958, including $19,561,558 cash and marketable securities, and current liabilities are $3,908,407. Net worth was $8,768,248.

Charging that the split-up and dissolution of Drug Inc. was an attempt by the directors to evade the scope of the new Federal securities act, a complaint was filed Aug. 3 with the Federal Trade Commission by Leo Levy, attorney, of 110 William street, New York, and John Herbert Harris, a minor, who are respectively the holders of stock in Drug Inc., and bonds of United Drug Co. The complaint was filed with the commission Aug. 4.

The complainants requested an investigation of the entire history of Drug Inc., with particular reference to alleged issuance of $40,000,000 of bonds of the United Drug Co. after that company came under the complete control of Drug Inc., in March, 1928. The reorganization, it is charged, makes no provision for the security of the holders of these bonds.

Earnings and Dividends

ANCHOR CAP

Anchor Cap Corp., reports for six months ended June 30: Net profit after depreciation, Federal taxes and including provision for Canadian exchange fluctuations and other charges, $259,900, equivalent, after $6.50 preferred dividend requirements, to 69 cents a share on 227,408 no-par common shares, excluding 3,350 shares in treasury. This compares with $241,904, or 60 cents a share on 227,758 common shares, in first six months of last year. Quarter ended June 30: Net profit after same charges, $203,151, equal to 67 cents a share on 227,408 common shares, compared with $56,749, or 2 cents a share on 227,408 common shares, in preceding quarter, and $152,819, or 44 cents a share on 227,758 shares, in second quarter a year before.

COMMERCIAL SOLVENTS

Commercial Solvents Corp., reports for six months ended June 30: Net profit after depreciation, Federal taxes and reserves $637,048, equal to 25 cents a share on 2,530,371 no par common shares, against $589,274, or 23 cents a share, last year. Quarter ended June 30: Net profit after same deductions $412,290, equal to 16 cents a share, compared with $224,758, or 9 cents a share, on 2,530,277 shares in preceding quarter, and $295,820, or 12 cents a share, on 2,530,200 shares in second quarter last year.

CROWN CORK & SEAL

Crown Cork and Seal Co., Inc., reports for six months ended June 30: Net profit after depreciation, interest, Federal taxes and other charges, $480,607, equivalent after preferred dividend requirements to 74 cents a share on 384,142 no-par common shares. This compares with $220,213, or 7 cents a share on 384,142 common shares, in first half of 1932. Quarter ended June 30: Net profit after same charges, $578,784, equal to $1.25 a common share, against net loss of $98,177 in preceding quarter and net profit of $228,695, or 34 cents a common share, in second quarter last year.

DOW CHEMICAL

Dow Chemical Co. has declared dividends as follows, payable August 15 to Stockholders of record August 1: preferred stock, 1¾ per cent.; non-par value stock, 50 cents per share.

DRUG, INC.

Drug, Inc., has declared a regular quarterly dividend of 75 cents per share on the capital stock payable September 1 to stockholders of record August 15.

HAZEL-ATLAS GLASS

Hazel-Atlas Glass Co., reported a consolidated net profit of $893,444 for the quarter ended June 30, after depreciation, Federal taxes, and other charges. This was equal to $2.05 a share on 434,474 capital shares, par $25, including stock in treasury. It compared with $296,729, or 69 cents a share in the preceding quarter. For the six months period, the net was $1,190,173, or $2.74 a capital share.

LAMBERT CO.

Lambert Co., reports for six months ended June 30: Consolidated net profit after taxes and other charges, $1,288,967, equal to $1.72 a share on 748,996 no-par capital shares, compared with $2,568,384, or $3.43 a share, in first half of 1932. Quarter ended June 30: Net profit after same charges, $470,937, or 63 cents a capital share, compared with $818,029, or $1.09 a share in preceding quarter and $1,147,669, or $1.53 a share in second quarter last year.

LEHN & FINK

For the six months ended June 30, Lehn & Fink Products Co. reported a net income of $314,540 after charges and taxes. This was equal to 77 cents a share on 408,966 capital shares and it compared with a net of $629,372, or $1.50 a share on the capital shares in the first half of last year. For the quarter ended June 30, the net income amounted to $196,563, or 48 cents a capital share. This was comparable with $117,977, or 29 cents a capital share in the first quarter of this year.

MONSANTO CHEMICAL

Monsanto Chemical Co. reports for six months ended June 30: Net profit after depreciation, Federal taxes and other charges $838,947, equal to $1.96 a share on 427,608 $10 par capital shares excluding $1,392 shares in treasury. This compares with $534,221, or $1.24 a share, on 429,000 shares in first half of 1932. Quarter ended June 30: Net profit after same charges $542,027, equal to $1.27 a share on 427,608 shares, compared with $296,920, or 69 cents a share, on 427,166 shares in preceding quarter and $258,361, or 60 cents a share, on 429,000 shares in second quarter a year ago. Company recently changed its name from Monsanto Chemical Works to Monsanto Chemical Company and converted outstanding stock from no par to $10 par value.

The company on Sept. 30 will retire $200,000 of its 5½ per cent. first mortgage sinking fund bonds due in 1942. This redemption will be in addition to sinking fund retirements.

NEW JERSEY ZINC

New Jersey Zinc Corp. reports for six months ended June 30: Net profit after depreciation, depletion, taxes, contingencies and other charges, $1,370,380, equal to 70 cents a share on 1,963,264 par $25 shares, compared with $1,078,999, or 55 cents a share, in the first half of 1932. Quarter ended June 30: Net profit after same charges, $933,002, equal to 48 cents a share, compared with $437,378, or 22 cents a share, in the preceding quarter and $187,896, or 25 cents a share, in the second quarter last year.

ROSSVILLE ALCOHOL

Rossville Alcohol and Chemical Corp., reports for five months ended May 31: Net income, after expenses, depreciation and other deductions, $57,346, equal to 38 cents a share on 149,256 7 per cent. preferred shares.

SHARP & DOHME

Sharp & Dohme, Inc., reports for six months ended June 30: Net profit, after depreciation, Federal taxes and other charges $271,632, equal to $1.18 a share on 229,085 shares of $3.50 preferred stock, against $311,671, or $1.36 a preferred share, in the same period last year. Quarter ended June 30: Net profit, after same deductions, $149,229, equal to 65 cents a preferred share, against $122,403, or 53 cents a share, in preceding quarter, and $167,653, or 73 cents a share, in second quarter of 1932.

Toilet Preparations Stand or Fall on the Quality of their **Basic Ingredients**

Neither secret formula nor manufacturing skill alone insure successful selling quality. The grade of basic materials you use, in the long run, makes or breaks your product. Over 40 years of highly successful experience with manufacturers and packers attests our ability to contribute the grade and variety of basic ingredient that will creditably take care of your product's quality.

Almond Meal	FACTOLAC	Talcum
Balsam Tolu	Gum Arabic	Irish Moss
Benzoin Gum	Gum Tragacanth	Lavender Flowers
Chalk (Precipitated)	Henna	Olibanum
Chinese Shavings	Henasoap Shampoo	Orris Root
Cuttle Fish Bone	Indian Gum (Karaya)	Powdered White Soap

QUINCE SEED OF THE HIGHEST OBTAINABLE QUALITY

HOPKIN'S NEUTRAL WHITE SOAP—Powdered, Granulated. Contains NO Soap Bark, Free Alkali, Free Acid, heavy metals. Totally free of rosin, sugar and foreign matter.

FREE at your request: The Hopkins "BASIC INGREDIENTS" booklet. Useful, informative, valuable.

J. L. HOPKINS & CO.

Importers . Millers . Manufacturers
220 Broadway (at Fulton St.) N.Y.

NRA MEMBER U.S.

WE DO OUR PART

We Have Signed
The President's
NATIONAL RECOVERY ACT

BOPF-WHITTAM CORPORATION

SALES OFFICE
EMPIRE STATE BLDG.
NEW YORK, N. Y.

First American Manufacturer of
Refined Lanolin, Hydrous and Anhydrous
. . Established 1914 . .

MAIN OFFICE
and PLANT
WESTFIELD, N. J.

U. S. INDUSTRIAL ALCOHOL

U. S. Industrial Alcohol Co., has reported a net profit of $299,155 for the six months ended June 30, after all charges, being the equivalent of 80 cents a share on 373,846 common shares and comparing with a net of $32,967, or about 8 cents a share, in the first half of 1932.

Industry's Stocks Recede

Prices of common stocks of corporations in the drug and cosmetics industry have receded with the rest of the stock market a trifle more than 15 per cent. from the high point for the year recorded the last week in June, according to the stock price indexes of the Standard Statistics Co., New York. A comparison over recent weeks of the drug stocks index and that for 351 industrials, follows:

	(1926 average equals 100)	
	Drugs and Cosmetics	*351 Industrials*
1933		
July 5	99.1	84.8
12	96.3	86.6
19	92.1	85.0
26	86.0	77.4
Aug. 2	83.0	76.2
1933 High	99.7	86.6
Low	53.9	38.7
1932 High	88.3	61.6
Low	45.0	31.9

Obituaries

Robert D. Eaton

Robert Dennison Eaton died at his summer home at Chenango Lake near Norwich, N. Y., August 6th, aged 79 years.

In 1890 he became financially interested in The Norwich Pharmacal Co. and held the office of director and secretary from 1901 until 1921 when he became chairman of the board of directors. Always prominently connected with various Norwich enterprises, he served for many years as president of The Norwich Water Works, the R. D. Eaton Grain and Feed Co. and Vice-President and director of the National Bank and Trust Co. He was a charter member of the Norwich Club, Canasawacta Country Club and a member of the Congregational Church.

One brother Harry Eaton and three sons, Robert S., Warren E., and Melvin C. and several grandchildren survive.

John Thomas Lupton

John Thomas Lupton, former vice-president and treasurer, Chattanooga Medicine Co., and part owner of the Coca Cola Bottling Co., died at Brevard, N. C., July 31, aged 71.

William Hynd

William Hynd, vice-president and general manager, A. C. Hynd & Co., Buffalo, died at his home in that city, August 9.

Herman Sattler

Herman Sattler, for the past sixty years an employee of Sharp & Dohme, Inc., Baltimore, died August 6, aged 81.

Fougera's Daughter Killed

Edmund M. Fougera, of Hyman & Hyman, is mourning the death of his daughter, Mrs. Marion O'Neill who, with her husband, Michael J. O'Neill, was killed in an automobile accident outside Buffalo on Friday, Aug. 11. Mr. O'Neill died five minutes after arriving at the hospital, while Mrs. O'Neill was dead when she arrived. Funeral services were held at the Little Church Around the Corner, New York on Wednesday, Aug. 16.

Burdick Memorial

The Memorial Edition of "ABBOGRAMS" for Dr. Alfred S. Burdick is an appropriately bound, 124-page volume containing expressions of sympathy received at the time of Dr. Burdick's death. The volume is dedicated to Ella Brown Burdick and has a foreword by S. DeWitt Clough and a large cabinet photo of Dr. Burdick.

Gouldin Succeeds Weinberger

Walter Weinberger has resigned as chemist for the Mennen Company. H. D. Gouldin succeeds Mr. Weinberger at Mennen.

Merck at the Fair

Below are shown two views of the exhibit of Merck & Co. in the Hall of Science at the Century of Progress in Chicago. In the exhibit are: A Nososcope shown treatment of malaria, syphilis and heart failure; sublimation of iodine; electrolysis of silver crystals; sources of raw materials on a revolving map; a three dimensional picture of the Merck plant; a pharmacist at work; and bottles containing a long list of chemicals.

BASIC PERFUME MATERIALS

Aromatic Chemicals, imported and domestic Essential Oils, Grained Tonquin Musk, Perfume Oils, Natural Isolates, Turtle Oil, Terpeneless Essential Oils, etc. Obtainable in all size packages under the original MM&R seal and label.

Selection of raw materials on a quality rather than price basis should be your guide in the purchase of Basic Perfume materials. Specializing as we do in the importation and production of the finest grades only, it is to your interest that you permit us to figure on your requirements.

★ ★ ★

Magnus, Mabee & Reynard, Inc.

MAIN OFFICES:
32 Cliff Street, New York

Established 1895

Agfa

Orange Blossom

For the production of the odor of Orange Blossom we recommend the following Agfa aromatic products—of utmost purity.

Orangeol A
Orangeol B
Yara Yara
Bromelia
Alpha Amyl Cinnamic Aldehyde
Dimethyl Anthranilate (*for creams*)
Methyl Anthranilate
Indol
Floranol
Aldehyde C 10
Bigarol
Cyclamal
Phenyl Ethyl Alcohol
Bigaradia
Benzyl Acetate Ia

FACE POWDER BASE Z

A new chemical which adds slip, smoothness and adherence to your face powder. It is the most interesting ingredient for *the improvement of face powders to come* out in many years.

Samples of above on request.

GENERAL DRUG CO.
170 Varick Street
New York

907 Elliott Street
Windsor, Ont.

556 W. Congress Street
Chicago, Ill.
Phone: HArrison 7441

Analyzing the New Drug Act

(*Continued from page 160*)

Department's Analysis

Exempts publishers and radio broadcasters and advertising agencies from penalties if they furnish name of person responsible for the advertising.

Exempts dealers from prosecution who hold guarantees. Prohibits forging of label identification devices authorized by regulations under sections 12 and 22.

Sec. 18. Provides for liability of officers of corporation violating the law.

Sec. 19. To avoid multiplicity of seizure and criminal proceedings United States courts are vested with jurisdiction to restrain repetitious violations by injunction.

Sec. 20. Lays down procedure for excluding adulterated, misbranded and falsely advertised food, drugs and cosmetics from importation.

Sec. 21. Secretary authorized to publish all court proceedings, to disseminate such other information regarding food, drugs and cosmetics as may be necessary to protect the public health or to protect the public against fraud.

Sec. 22. Secretary authorized upon application of manufacturers to designate supervisory inspectors in factories of food,

Supplemental Analysis

manufacturer, processor or packer does not hold a valid permit when required under Sec. 12; the refusal of a railroad or other common carrier to permit any officer or employee of the Department to have access to, or to copy, any records of movements of shipments as required by Sec. 14.

(b) Fixes the punishment for the first and *unintentional* violation of Sec. 17 (a) by anyone, fine from $100 to $1,000 and/or imprisonment up to one year; and for *each* subsequent *unintentional* violation, fine from $500 to $3,000 and/or imprisonment in penitentiary up to two years.

(c) Fixes the punishment for each intentional or wilful violation, fine up to $10,000 and/or imprisonment in penitentiary up to three years with no discretion in Court to impose fine of less than $1,000 or imprisonment for less than six months.

Note: The penalties are unreasonable and inhuman. And to throw a manufacturer, publisher, radio licensee or advertising agent into the penitentiary and brand him as a felon for an *unintentional* violation that could not reasonably be foreseen and avoided is un-American, repulsive to an ordinary sense of justice and cruel. There should be no criminal prosecution except for intentional violations or violations committed with knowledge. Even then, only the manufacturer, advertiser or shipper should be criminally prosecuted. Publishers, radio licensees and advertising agencies should not be punished criminally *unless they refuse to divulge identity of advertiser.*

(d) *Does not exempt publishers, radio broadcasters or advertising agencies* from penalties "if they furnish name of person responsible for the advertising." Merely authorizes Department *to exempt* any such person *if it wishes to do so* by requesting him, *through an officer or employee duly designated by the Secretary*, for such information (which the Department ordinarily possesses). The language of the provision is: "No person acting in the capacity of publisher, advertising agency, or radio broadcast licensee shall be prosecuted under paragraphs (b) or (c) of this section for disseminating a false advertisement *if, on request of an officer or employee duly designated by the Secretary*, he furnishes" the information. Does not provide that such person shall not be prosecuted criminally *if* he furnishes the information *or unless* he withholds it. The whole Bill is very cleverly worded, as this provision illustrates; the wording of this section tends "to create a misleading impression" and to forestall opposition from the Press until after the Bill may be passed. This misunderstanding is fostered by the Department's statement in the opposite column.

Sec. 21. Authorizes Secretary to publish at his will *any* "such information regarding any food, drug or cosmetic as *he* deems necessary in the interstate of public health and for the protection of the consumer against fraud." This can be done without any hearing or opportunity for defense and only the Secretary is the judge regarding what information he will distribute and the frequency and extent of such distribution at public expense. It gives broad opportunity for propaganda at the expense of the taxpayers.

Sec. 22. A very clever provision to unload on the manufacturing concerns that are to be regulated, supervised or licensed the

(*Continued on page 196*)

DESCOLLONGES FRERES

LYON Established 1904 PARIS

■

HEXYL CINNAMIC ALDEHYDE

Gives a note softer and finer than Amyl Cinnamic Aldehyde, and a more "natural" effect in the final compound.

■

CONVALLAROL

New chemical product of particular interest as a base and fixative for Lily of the Valley. Extremely lasting, it helps to smooth and blend compounds into which it is introduced.

■

BENJ. FRENCH, INC.

New York: 160 Fifth Avenue

Chicago: 549 W. Randolph Street

Colors *for* Hair

Preparations

Hair Rinse Tints

(Highly concentrated powders)

All shades per lb. $5.00

One-quarter lb. sample 1.50

Wave Set Colors

Wave Set Green B per lb. $3.50

Wave Set Yellow G per lb. 3.50

(A combination of above two makes any shade of green.)

Brilliantine Color

Brilliant Green Paste per lb. $3.50

(Oil Soluble)

All Quotations f. o. b. New York

We also carry a complete line of high quality materials used in the manufacture of wave-sets, shampoos, brilliantines, hair tints and all other types of hair preparations. Investigate the following:

Acetic Acid	Boric Acid	Gum Paragon
Aqua Ammonia	Brilliantine Oil	Methyl Para Hydroxybenzoate
Borax	Citric Acid	Tartaric Acid, Etc.

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Specializing in

Chemicals for the Cosmetic Industry

WEST COAST REPRESENTATIVE

J. W. LESER & CO., 1001 E. First St., Los Angeles, Calif.

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ZINC OXIDE

. . . . . by the pioneer manufacturer of zinc products . . . . . .

THE NEW JERSEY ZINC COMPANY

160 FRONT STREET, NEW YORK

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Why so many leading cold-cream manufacturers USE

BEEHIVE BRAND BEESWAX

First, because Beehive Brand Beeswax is pure—the finest that money can buy. In many cases, a smaller amount is used in the cream than is required of ordinary beeswax, and with better results.

Our own buyers select the finest grade of crude beeswax. It is critically examined at the source and again carefully tested for purity and quality by our chemists. Beehive Brand is then sun-and-air bleached—a method that is slower and more costly but infinitely better than ordinary chemical bleaching. This work is done by and under the direction of veterans, many with more than 45 years of service.

Specify Beehive Brand for your next order of beeswax.

WILL & BAUMER CANDLE CO., Inc.

Syracuse, New York Est. 1855

SPERMACETI CERESINE

GLYCERINE STEARIC ACID RED OIL

Emulsion Flavors

(Continued from page 118)

obtained from species of Astragalus—small shrubs widely distributed in the Turkish Empire and Persia—by exudation. The finest grades are white and in flakes and are known in commerce as "flake tragacanth."

The following formulas for emulsion of oil of lemon employ these two very efficient emulsifying agents—gum arabic and gum tragacanth.

No. 1. 4 oz. finely powdered gum arabic
8 oz. oil of lemon
4 oz. distilled water
4 oz. glycerine (chemically pure)

Place the oil in a clean dry dish. Add the oil of lemon and mix well. Mix the water and glycerine together and then add it to the oil and gum. Very little agitation will cause an excellent emulsion.

No. 2. 1½ oz. powdered gum tragacanth
100 oz. oil of lemon
50 oz. glycerine (chemically pure)
50 oz. distilled water

Place the powdered gum in a dry mixer, add the oil of lemon and thoroughly mix. Mix the water and glycerine, add to the gum and lemon oil mixture and emulsify the entire mass. In order to make an emulsion successfully from this formula it is necessary to keep the gum away from the sides of the container especially during the early part of the emulsification. Much less gum tragacanth is required than gum arabic since it dissolves or swells up in 50-60 times its own weight of water.

The emulsions considered so far are all cloudy in appearance but it is possible to produce transparent ones. It is well known that by equalizing the refractive indices of the dispersed phase and the dispersing phase, there is neither reflection nor refraction of light and a transparent emulsion results. The principle underlying this phenomena is easily explained by using a pencil and a glass of water. Immerse the pencil at an angle of 45° below the surface of the water to a depth of about two inches. It appears broken at the meniscus of the water and its image below the water is slightly displaced. The pencil represents a beam of light which passes through two mediums of unequal densities. Had the air and water been of like densities, the pencil would not have appeared broken and the beam of light would have passed through the two mediums without being bent at the surface of the water. Light passes directly through two liquids of equal refractive indices and this fact makes transparent emulsions possible.

It is well to determine the refractive index of the oil to be emulsified at 25° C. and then match that of the dispersing medium to it at the same temperature. It has been found that a change in temperature of five degrees above or below this point has almost no effect on the transparency of the emulsion. Therefore, it is safe to say that they will withstand usual storage conditions.

The following formulas for transparent orange or lemon emulsions employ different emulsifying agents as well as different dispersing mediums.

Semi-terpeneless Emulsions of Orange or Lemon Oils.

No. 1. 13 oz. gum arabic
20 oz. terpeneless oil
20 oz. regular oil
Invert sugar and water to make 10 gallons.

Dissolve gum arabic in water and add to invert sugar solution. Take refractive index of mixed terpeneless and natural oils and make refractive index of sugar and gum arabic mixture identical by adding proper quantity of water. Homogenize.

No. 2. 4 oz. gelatin
16 lbs. water
24 lbs. cane sugar
60 lbs. invert sugar
20 oz. terpeneless oil
20 oz. regular oil

Dissolve the gelatin in the water, add the cane sugar and heat until dissolved. Then add the invert sugar and mix well. Match refractive indices as in preceeding formula and homogenize.

A formula for transparent rose oil emulsion is given below.

25 lbs. invert sugar
10 lbs. cane sugar
1 gal. water
1½ oz. gelatin

This will make four gallons of sugar syrup with a refractive index of 1.4695 at 25° C. To this add one pint of rose oil and homogenize.

Terpeneless rather than the natural oils are to be recommended in the preparation of emulsions since they retain their fine flavor quality almost indefinitely owing to the removal of the terpenes which oxidize so readily and produce objectionable taste and odor. This is most apparent in the case of oils of the citrus variety such as orange, lemon and lime.

In the manufacture of gum emulsions it will be found advantageous to allow the emulsion to stand for a time before it is completely emulsified. Various directions often call for water to be added to the oil mixture in small portions because in some way it is similar to intermittent beating. It was found in the preparation of the transparent emulsions that with 0.25% of gelatin it was possible to incorporate up to 15% orange oil, with 0.5% gelatin 20% and with 1% gelatin 30% oil. It was impossible to exceed these concentrations and keep a stable emulsion. Best results were obtained by adding the oil to the dispersing phase in portions of 5% at a time and homogenizing after each addition of oil. As the concentration of the dispersed phase increased, the emulsions became more viscous and difficult to homogenize.

Successful emulsification depends on two things:

(1) Satisfactory subdivision of the dispersed oil.
(2) Subsequent stabilization of the emulsion.

Raw Material Markets

Chemicals **Essential Oils** **Natural Products**
Drugs **Medicinal Oils** **Flavors**

Cod Liver Oil Easier

An easier tendency developed in the spot market for cod liver oil. During the month prices declined $2.00 a barrel to the basis of from $26.00 to $28.00 as to quantity and brand offered. This was a direct result of a seasonal lull in the market and some decline in foreign exchange. Importers are carrying a substantial volume of contract orders on their books for fall delivery but very little business is passing in the spot market.

The statistical position of this item continues strong, however. A considerable part of this year's smaller production has been disposed of abroad so that what oil remains there is strongly held. The total output of cod liver oil in Norway for the first five months of 1933 was 2,257,440 gallons of steamed medicinal oil and 28,650 gallons of all other kinds of the oil.

Imports of cod liver oil into the United States during the last five years have shown a steady decline, figures compiled by the Commerce Department's chemical division reveal. In 1932, total imports amounted to only 1,248,000 gallons, a figure approximately one-half of that of 1928.

The report further states that while the decline is chiefly due to prevailing economic conditions, recent production in this country of various vitamin concentrated products undoubtedly has played a part in the situation.

Alcohol Prices Steady

Alcohol prices are basically unchanged with the exception that winter requirements of the anti-freeze trade were booked at a lower level than heretofore prevailed. The schedule on this grade of alcohol was 34c per gallon in drum carloads and 42c per gallon for single drum lots. An exceptionally good volume of contract business was done for winter delivery contracts being written this year on a when wanted basis.

Prices on all industrial grades of alcohol remain unchanged and quite firm tending to the strong side.

Quotations for delivery during the period July 1 to September 30, 1933 on the principal formulae are as follows:

	Carloads drums	*Single drum price*
No. 1 spec	.335	.415
No. 5 comp	.34	.42
23 A. spec	.37	.49
39B. spec	.38	.50
40 M. spec	.34	.46

Prices quoted are f.o.b. works.

Price Indexes

Apparent strengthening of the dollar in foreign markets is probably part of the reason why prices have hesitated somewhat in their upward progress.

Prices of 50 drug and chemical products registered a small net decline from 61.0 in July to 60.5 in August. This figure still compares most favorably with the low of 54.9 in March and April.

This change was wholly due to declines in prices of medicinals, the index falling in August to 65.5, compared with 67.9 in the previous month. The index, of course, registers net change, alcohol, cod liver oil and iodine being quoted lower (the last because of direct change in dollar value with respect to pound sterling), while cream of tartar, menthol and mercury were raised in price.

Continuing the upward trend of the last few months, essential oil prices reached 46.4 in August, compared with 44.8 in July. Only five items did not change in price—bois de rose, lemon, limes, rose and sandalwood—while the decline in peppermint was smothered by rises in the other items.

Botanicals stepped up to 72.0 in August, 1.6 higher than in July; agar and belladonna increased while gentian decreased.

Cosmetic raw materials rose to 66.2 in August from 63.9 in July. Alcohol declined, while balsam copaiba, beeswax, menthol, paraffin and tragacanth were higher.

Indexes of imports are not yet available, statistical divisions of the Department of Commerce functioning only slowly under reduced staffs. They will be included in succeeding issues as usual.

Camphor Declines

Camphor prices reflected the somewhat lower import costs, having receded from the highest levels reached during the past month, but continue above the level of our last report. Japanese refined slabs were priced at from 50c to 51c per pound, refined powder 51c to 52c and ½ oz. tablets 56c to 57c. Slowing up in demand was also a factor that developed the easier tendency noted late in the month.

Consul John B. Ketcham, Taihoku, reports that the Camphor Division of the Taiwan Government Monopoly Bureau has advised the Taiwan Camphor Manufacturing Co., which is the sole producer of camphor in the camphor forests of Taiwan, that a further reduction will be made in prices of the product. It was reported that the Monopoly Bureau has failed to make a profit on its camphor division during the last three years. On the other hand, the manufacturing firm has continued to make fairly satisfactory profits, which will be wiped out, it is claimed, if the price is further reduced.

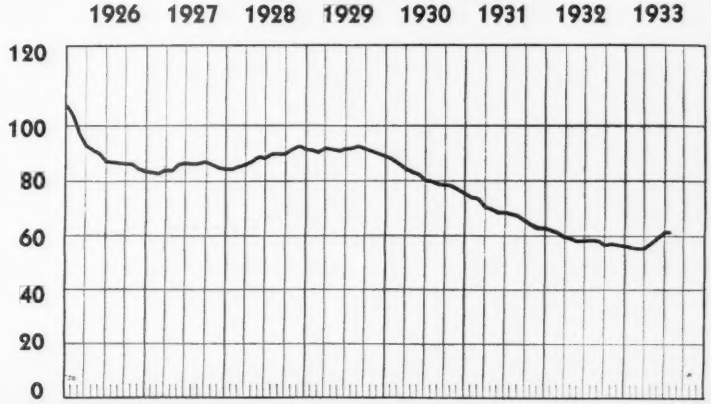
Thymol Prices Hold

Thymol prices held steadily during the past month. The slightly lower foreign exchange was without influence on spot quotations for this commodity. Thymol U. S. P. ranged from $1.45 to $1.60 and the iodide sold for $4.30 per pound.

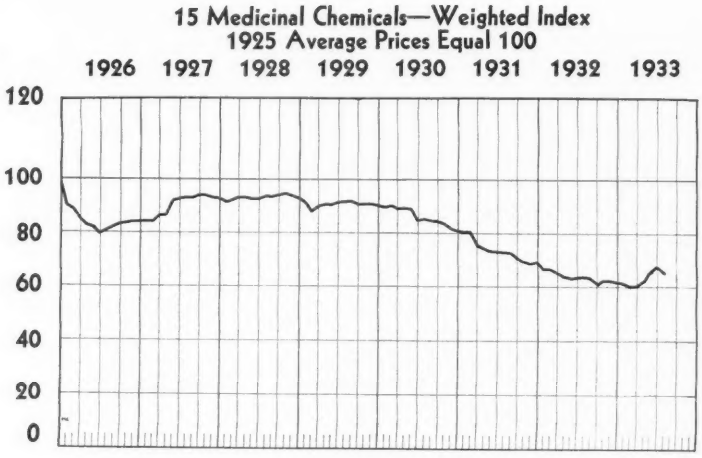
Acetylsalicylic Price Unchanged

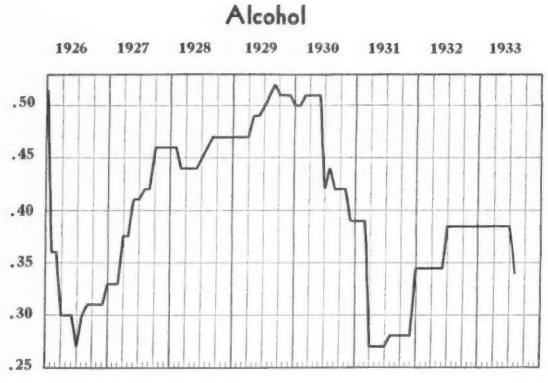
Acid acetylsalicylic was well maintained throughout the summer months. Prices were strong at from 70c to 75c per pound. Higher levels are generally expected with the advent of the larger consuming winter season.

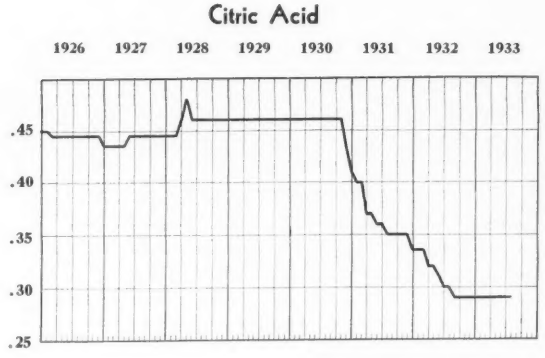
50 Raw Materials—Weighted Index
1925 Average Prices Equal 100

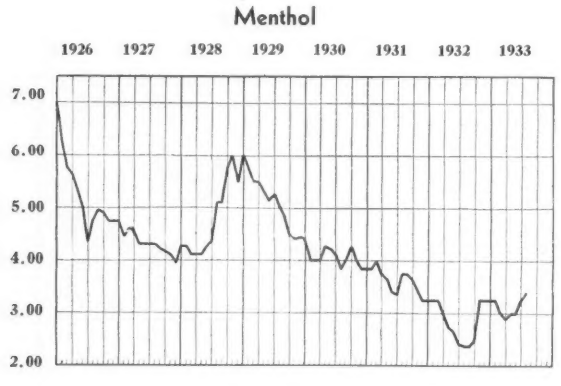


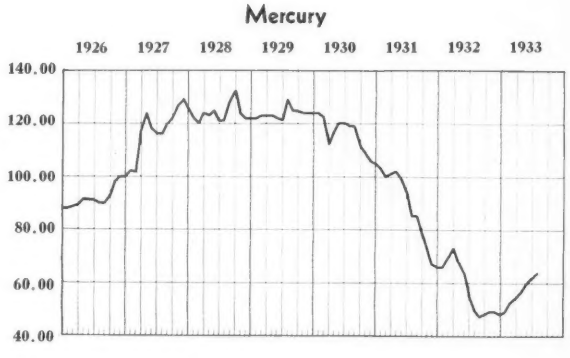
Medicinal Chemical Prices

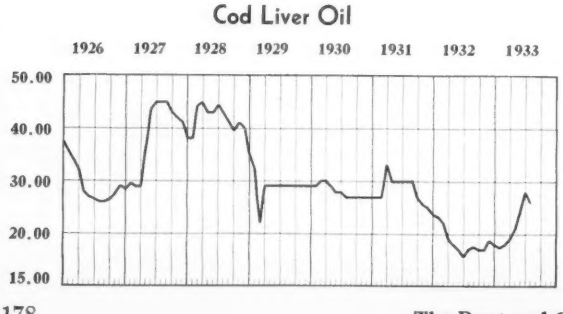


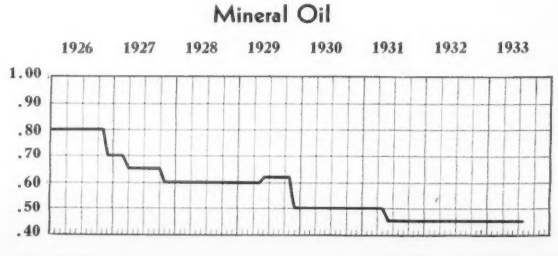












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NEW YORK QUININE & CHEMICAL WORKS
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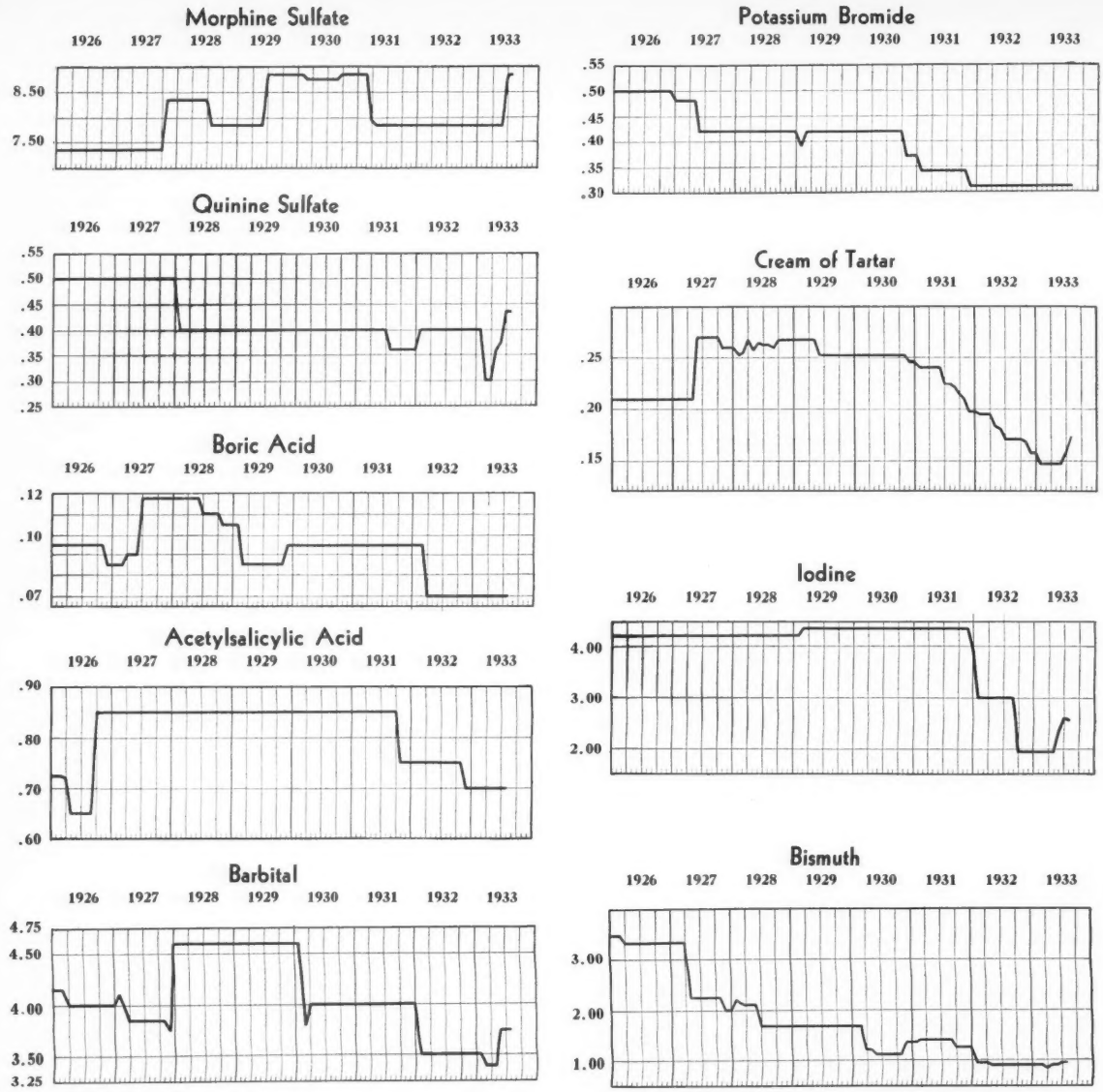
THE HARSHAW CHEMICAL COMPANY,
Cleveland, Ohio

PACIFIC COAST SERVED BY

Products Department CALIFORNIA FRUIT GROWERS EXCHANGE, Ontario, California



Glycerine Very Firm

The spot market for C. P. Glycerine is very firm. Crude costs have advanced somewhat. There is also little or none of the foreign material here that has been a strong competitive influence for some time back. Foreign material is now at a price disadvantage due to the higher cost to import.

Although prices are generally unchanged from 10¼c per pound, that has prevailed for many months, it is reported that one refiner, acting independently has put the price to 10¾c. The general tendency among refiners, however, seems to be to keep the price at present levels until the large volume of fall buying is placed so as to get in this business without the danger of placing the foreign material again in a competitive position.

Statistics compiled by the Department of Commerce showed production of 13,076,684 pounds of chemically pure glycerine for the quarter period ended June 30, 1933. During that period consumption totaled 1,913,686 pounds and factory and warehouse stocks of 11,913,109 pounds.

Menthol Fluctuating

The price situation on menthol is rather choppy. Fluctuating Japanese exchange has resulted in several recent changes in spot quotations. Early reports place the market here at from $3.40 to $3.60 per pound, but it was later stated that better than this could be done on firm business. Prices on spot were therefore practically nominal in view of this condition.

The market is very quiet from a demand standpoint. It is said that leading consumers are well supplied, in some cases to the extent that they will not be in the market for additional material for a considerable time.

In Japan the new crop is progressing favorably and distillation will get under way shortly. This was indicated in recently cabled offerings.

Mercury Still Higher

Mercury continued to advance on spot the new level being on the basis of from $64.00 to $65.00 per flask. This represents an advance of $2.00 per flask since our last report. Stocks still continue in a small way, it being said that not more than 500 flasks are being held here.

There has been some talk of more western mines opening as production of quicksilver would be profitable at present levels. To a late date, however, this development has not taken place and there is little or no accumulation of stocks.

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Oil Bergamot

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"Ozone" Van-Ethylin

(Ethyl Protocatechuic Aldehyde)
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three times stronger

Coumarin

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From Selected Bourbon Beans

Vanil X10X
(Pure Vanilla Extract 10 times Concentrated)

UNGERER & CO.

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Peppermint Oil Weakens

With distillation of oil peppermint in full swing, and results fairly satisfactory so far, the primary market has taken on a decidedly easier tendency. Although it is reported production will be below last year's figures, it is generally felt that an ample supply of oil will be available when the carryover from the last crop is taken into consideration.

Dealers in the middle west have reduced prices considerably and so weakened the spot market to the extent that sharp declines were noted here. Prices for natural oil ranged from $2.85 to $3.05 per pound and the distilled sold at from $3.35 to $3.70.

The recent sharp fluctuations in this oil have had the tendency to slow up trading with both buyers for consumption and dealers. The policy seems to be to await developments in the primary market and more complete details regarding the new crop.

Citronella Quiet

The spot market for citronella was lacking in any movement of expansion during the period under review. The tendency of buyers for consumption as well as for import was to await further developments in the primary market. Stocks here were substantial. Java oil sold in drums at 52c and Ceylon at 38c per pound.

Geranium Oil Up

Geranium oil was advanced owing to the higher import costs. Algerian generally sold at from $4.75 to $5.50 per pound and the Bourgon at from $4.75 to $5.25. The situation was one of considerable strength. Turkish oil was also reported as very strong in undertone but unchanged in price. Local buying was conservative but sellers maintained a reserved attitude in view of replacement costs.

Lemongrass Advances Further

Oil lemongrass continued to advance as this item remained very difficult to replace. Stocks in the Far East are restricted and shippers failed to make any offerings. With spot stocks also low leading factors here have been compelled to increase their asking prices sharply. Prices ranged from $1.05 to $1.40 per pound as to quantity and seller.

Orange Oil Advanced

California orange oil advanced to the basis of 55c per pound for distilled and $1.00 for the expressed. At the advance this oil still held the price advantage over other brands. Italian oil was also higher at from $1.30 to $1.70 per pound, the others remaining without change. The citrus oils as a whole are meeting with a good seasonable demand.

Lavender Sharply Higher

U. S. P. lavender oil is sharply higher. This oil had been rather slow in reflecting the higher costs abroad, but with most of the cheaper lots taken out of the market dealers were forced to advance spot prices more in line with replacement costs. Minimum quotations were $1.65 and ranged to $2.85 as to quality.

Spike lavender was also higher at from 57c to 65c per pound as to quality and grade. New crop oil was reported as satisfactory when general consuming conditions were considered but the new oil was being offered at advanced prices.

Formerly a normal production of spike lavender oil in Spain was approximately 300,000 pounds. Unfavorable conditions during the past five years, however, are said to have materially reduced the output.

Separate export statistics are not available showing shipments of spike lavender oil. However, it is stated by dealers that about 80 per cent of the Spanish oil production is usually exported. United States import statistics may furnish a partial index to trends in Spanish exports of spike oil.

Year	*Pounds*	*Value*	*Year*	*Pounds*	*Value*
1923	121,696	$86,222	1928	93,725	$73,915
1924	85,092	70,614	1929	90,520	53,144
1925	79,841	92,093	1930	92,676	45,042
1926	88,780	94,531	1931	77,601	33,545
1927	94,419	82,154	1932	58,903	25,053

Caraway Oil Firmer

Recent purchases of oil caraway were on a basis that would make shading from present levels in the near future unlikely. The primary market also held to a strong position although exchange was a little easier. Demand was active and the spot market price ranged from $1.85 to $1.90 per pound.

Citral Advanced Again

The citral market was again advanced to cover the increased cost of raw material. Prices were quoted on the basis of from $2.00 to $2.20 per pound.

Oil Pennyroyal Up

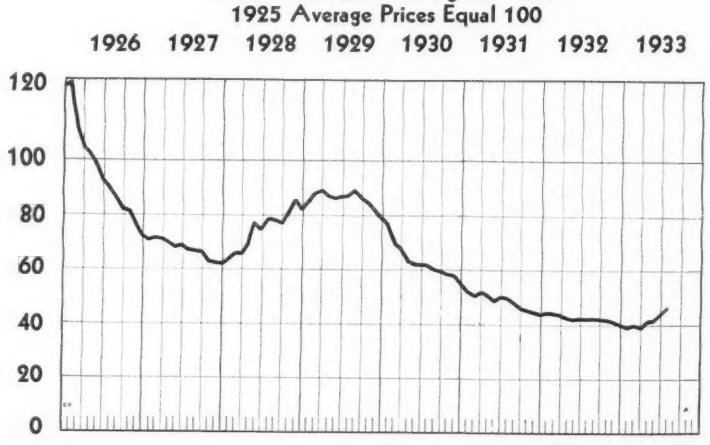
Import costs have at last been reflected in oil pennyroyal. The spot market is up to the basis of from $1.30 to $1.40 per pound. At this price the item was subject to a good demand. Domestic oil was also substantially higher at from $1.75 to $1.85 per pound. This trend was in line with the generally higher levels of all domestic commodity prices.

Spain is reported to be the largest European producer of pennyroyal oil, which is distilled from a variety of Mentha pulegium. Occurrence of the botanical raw material and production of the oil center chiefly in the Provinces of Huelva and Cadiz. Distillation takes place customarily during July and August. The output in 1925 in Spain is roughly estimated at 20,000 pounds. During 1930, approximately 22,000 pounds were produced compared with only about 5,000 pounds in 1931. Exports of pennyroyal oil from the port of Seville to the United States according to declared export returns amounted to 2,610 pounds valued at $1,688 in 1929, 2,697 pounds and $1,699 in 1930 and 2,733 pounds and $1,785 in 1931.

Rose Oil Crop Better

Favorable climatic conditions in the production area of Bulgaria are expected to yield a larger and finer quality of oil from the 1933 crop. It is estimated that the area of rose gardens in 1933 is approximately 70,000 decares, the same as last year. The rose crop this year is expected to attain about 8,000,000 kilos, from which should be distilled over 2,000 kilos of oil. The rose crop in 1932 yielded 1,891 kilos of oil. Rose-oil exports from Bulgaria totaled 919 kilos during 1932, whereas shipments for the first quarter of 1932 and 1933 amounted to 141 and 386 kilos respectively. The future outlook for the industry is considered favorable, in view of the steps taken by the Bulgarian Government in 1932 to protect the rose growers and safeguard the purity of the oil. (Consul John McArdle, Sofia).

15 Essential Oils—Weighted Index
1925 Average Prices Equal 100



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Cade Oil Higher

Oil cade was higher on spot to offset increased cost to import. Demand was routine but business was done at the full market price of from 32c to 38c per pound.

Cade oil is extracted by dry distillation from the roots and other woody parts of Junipers oxycedrus, which grows wild in southern Spain. Methods similar to those applied to ordinary tar are employed, the cade oil being separated after distillation from the thick tar and water. Production was placed in 1921 at about 160,000 pounds, of which 60,000 pounds were consumed in Spain, the remainder being exported. The production and trade in this commodity has declined materially during the past ten years. Exports of cade oil from Seville to the United States amounted to 2,217 pounds valued at $843 in 1929, compared with 4,455 pounds worth $730 in 1930 and 4,409 pounds valued at $629 in 1931.

Bois de Rose Scarce

Cayenne bois de rose continues to be offered from the primary market only in lots of conservative size. With stocks here small the spot price has again been advanced to the basis of from $2.50 to $2.75 per pound. The Brazilian item is also in a firm position but without open price change of from $1.00 to $1.10 per pound.

Wormwood Production Small

Reports from the primary market would indicate that oil wormwood production this year will be conservative. Producers held very firm views as to values in view of this development. The spot market therefore took on a much firmer tone with prices advancing to the basis of from $3.00 to $3.25 per pound.

Almond Oil Sharply Higher

Sweet almond oil was sharply higher on spot at from 65c to 68c per pound. This movement reflected the increased cost to import. Demand was steady and although there was a late decline in exchange the spot market was unaffected.

Cananga Oil Moves Up

Oil cananga advanced sufficiently to offset the additional cost to import. Native sold at from $2.00 to $2.10 per pound and rectified $2.50 to $2.60. Demand was routine.

Spearmint Oil Higher

Oil spearmint was easier in sympathy with the general situation in the mint oil group. A satisfactory output of new crop oil is anticipated. Spot prices therefore receded to the basis of from $1.40 to $1.60 per pound in a rather quiet market.

Clove Oil Easier

The raw material for oil clove was slightly lower without affecting the spot market price of this item. Demand continued fairly active but also reflected the generally quieter aspect of the essential oil market as a whole. Spot prices were well maintained in all respects with oil in drums on the basis of from 89c to 94c per pound.

Lime Oil Strong

Highly seasonable weather tended to increase the consumption of lime oil to the extent that the market was very firm throughout the past month with little or no material available at competitive levels. Prices were unchanged but tended to the strong side.

Wormseed Firm

Among the domestic oils wormseed continued to occupy a very strong position. Prices on spot were up to the basis of from $2.10 to $2.35 per pound as to seller and quantity. The extended advance movement was the result of continued evidence of an exceptionally firm position taken by producers in the South. Locally the market was not very active.

Bergamot Up Sharply

One of the outstanding developments in the essential oil market was the sharp rise in the price of oil bergamot. Recent cables received indicated the Italian market to be such that spot quotations of from $1.65 to $2.00 was full warranted. The market was reported as more active with practically no sellers of low priced oil in view of the replacement situation.

Ginger Firmer

Demand for oil ginger was reserved throughout most of the recent trading period but the fundamental position as related to replacement costs was such that a firmer tendency developed. On spot the oil was offered at from $3.40 to $3.75 per pound.

Eucalyptus Prices in Line

The eucalyptus oil market during the past month more nearly reflected the prevailing import price of this commodity. Drums on spot brought from 25c to 27c per pound. Some of the larger manufacturing consumers have been covering early winter requirements and this has given additional strength to the market.

Cassia Oil Higher

Oil cassia was higher during the month at from $1.10 to $1.15 per pound. Somewhat lower exchange late in the trading period was not sufficient to effect spot quotations as oil now on hand was bought during the period of high cost replacements. Business was not quite so active in this item. Sellers were awaiting further developments in the foreign market.

Sandalwood Oil Firm

Sandalwood oil is in a quiet firm position. This item has not as yet fully reflected import costs. Contract buyers of Mysore oil have been placing their requirements in good volume and the market also reflected this condition. Spot price was fully $6.50 per pound. East Indian oil of other manufacture was offered at $5.50.

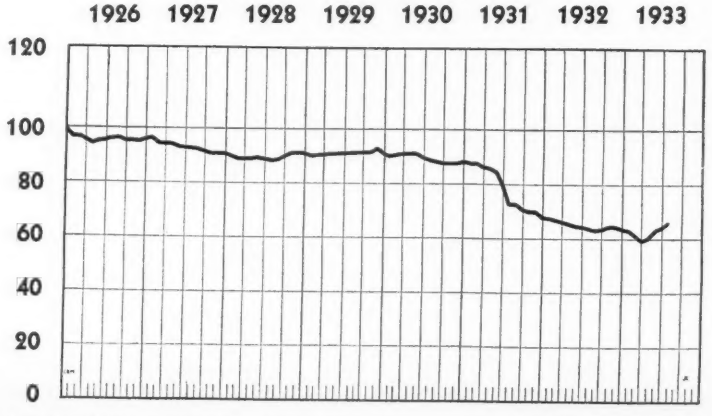
Anise Oil Firm

Although exchange is somewhat easier, oil anise held well for shipment. Demand on spot was less active recent trading having covered immediate requirements of most consumers. Spot prices, however, were well maintained in view of the recent high replacement costs. , Technical oil was from 40c to 43c per pound and U. S. P. ranged from 44c to 47c.

Glandular Products Strong

Prices for glandular substances, while unchanged in the spot market, are definitely tending to a stronger position. Higher levels are looked for shortly along with the tendency to advance commodity prices in general.

25 Cosmetic Raw Materials—Unweighted Index
1925 Average Prices Equal 100



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Balsams Firm

The balsams in all respects were in a very firm position. Copaiba was higher on spot. Para sold at from 30c to 31c per pound and South American at from 32c to 33c. This extension of recent trend was said to be a confirmation of early reports of small spot stocks and absence of offerings from the primary market.

Tolu balsam was sold in good volume with the tendency upward in price, as this item continued to be offered at higher levels in the primary market. From 78c to 88c was generally asked.

Peru was firm after the recent advance to a basis of from 90c to 95c per pound. A steady demand proved a drain on the small spot stocks of this item.

Vanilla Beans Steady

Most interest in the vanilla bean market continued to be centered on the Bourbons. The wide spread in prices between this grade and the Mexicans made the latter an item of little interest. Bourbons continued to sell at from 80c to $1.25 per pound as to quality offered. Seasonable consunption was running to excellent volume.

Pyrethrum Strong

The past month has seen a continuance of the upward trend in pyrethrum. Powdered is now on the basis of from 29c to 31c per pound as to quantity. Flowers also sold higher at from 26c to 28c per pound.

The movement toward higher levels for this commodity, which during the past three months has almost doubled its value, reflects various conditions. Reports of underproduction continue to come from Japan lending considerable strength to that market. Shipment costs are also higher because present prices are based on exchange at its recent high point.

A good part of the spot market strength is attributed to the ever widening market for this material. Because of recommendations on the part of the Department of Agriculture, this item is becoming more generally used as an agricultural insecticide. Buying continues in good volume although the season of largest consumption is drawing to a close.

Euphorbia Firmer

Euphorbia took to the strong side in the spot market on reports that this herb would be in small supply as collections which should be well advanced are disappointing. Quotations ranged from 6c to 8c per pound with the full market being asked.

Spanish anise advanced to from 10½c to 11c per pound in keeping with replacement costs and a reduction in spot stocks. Star firm but unchanged.

Golden Seal Strong

Golden Seal root is in an interesting position. Very little material is being offered in the primary market. The new crop of cultivated root is expected to be ready shortly but reports indicate it will be considerably smaller than last year. The low prices have discouraged the collection of the wild root so that those closely associated with the market feel that the strength in this item will be continued.

In view of these conditions spot prices have been advanced sharply. Whole root is now selling at from 90c to 95c per pound and powdered at from $1.00 to $1.00, with no one willing to commit themselves at below these figures. An expansion in consumer interest has been noted.

Chamomiles Very Firm

Chamomile flowers are very firm on spot being a reflection of a continued increased cost to import. The market here is said not to have fully reflected this condition so that there is every probability that an advance will take place in the not distant future. Consumption is reported to have held up well this summer. Hungarian flowers sold on spot at from 16c to 17c per pound, and the Roman flowers at from 36c to 38c.

Culvers Root Up

Previously prevailing low prices on many botanicals have had the tendency to discourage collections. This is particularly true of culvers root. Reports from the primary market indicate that little material is being obtained and the item has strengthened accordingly. On spot the market was advanced to the basis of from 13c to 14c per pound.

Angelica Root Advanced

Angelica root advanced to from 14c to 15c per pound. Replacement costs tended upward throughout the past period of review.

Senega Sharply Higher

Senega root was advanced sharply to the basis of from 42c to 45c per pound, with the outside price being more generally quoted. This was due to the influence of the strong position in Canada. Dealers in Winnipeg are being forced to pay collectors much higher prices so that most local sellers look to a further rise in this market. Export business has been particularly good.

Celery Seed Lower

Celery seed, which had advanced during the past three months to almost twice its original value before the movement set in, broke sharply in the spot market. Prices were down to the basis of from 55c to 60c per pound. The movement came when stocks available for prompt shipment were increased. Exchange rates also made it possible for primary market sellers to offer more freely and at prices in buyers favor.

Asafoetida Firm

Prices for spot gum asafoetida continued firm in all quarters but were without open change. Lump showed an upward tendency with improved demand. Stocks are now very large, especially for powder which is being milled as wanted.

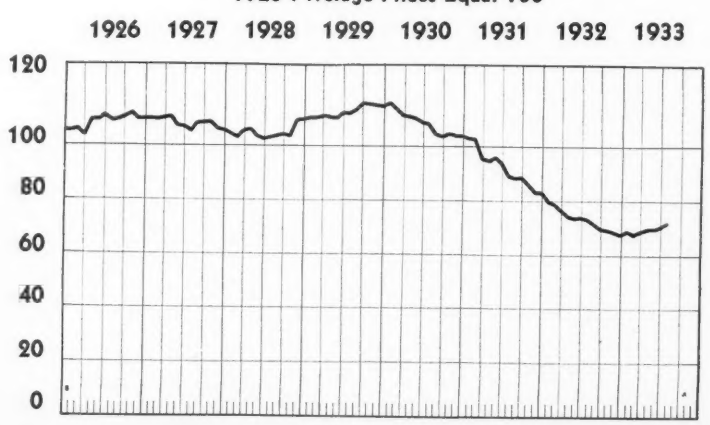
Spearmint Leaves Up

Spearmint leaves were advanced during the past month to the basis of from 17c to 22c per pound as to seller and quality. The movement reflected the increased cost of replacements and the absence of competition from small holders.

Caraway Seed Easier

Caraway seed was slightly easier on spot. New crop was offered more freely and the desire of shippers to sell added to the decline in Dutch exchange kept this item in favor of buyers. Price range was from 9½c to 10c.

15 Botanicals—Weighted Index
1925 Average Prices Equal 100



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Tragacanth Up Sharply

The feature of the gum market during the past month was the sharp advance in tragacanth. The rise in most instances was 10c per pound and reflected an excellent movement into consumption as well as the sharp advance in the primary market. Stocks abroad are small and being well held by the dollar value. On spot number 1 gum ranged from $1.00 to $1.10 per pound, number 2 90c to $1.00, and number 3 70c to 80c. Powdered gum sold at from 60c to 90c. Turkish was unchanged, however, at from 50c to 70c as to quality and quantity.

Gamboge Firm

Demand for gum gamboge was not very active of late but the absence of excess stocks held the market to a firm position. Most of tradingcovered immediate requirements of manufacturing consumers but prices paid were at the higher levels recently reached. Pipe was 53c to 55c per pound, powdered 60c to 65c.

Carnauba Wax Quiet

The market for carnauba wax was somewhat quiet although price of number 1 was well held at from 29c to 30c per pound. Recent arrivals supplied the more urgent requirements so that a slowing up was noted and generally expected. Supplies in the primary are still on the small side and will continue so until new production begins to arrive.

Benzoin Continues Up

Sumatra benzoin gum continued its upward trend throughout the past weeks. In an active market leading importers raised the level of the spot market to the basis of from 22c to 24c per pound. Siam gum was firm but unchanged at from $1.05 to $1.30 as to variety, size and quality.

Beeswax Strong

The spot market for beeswax was strong and active during the past several weeks. Demand was for substantial quantities. White wax advanced to the basis of from 32c to 36c per pound. Yellow refined sold at from 25c to 28c and yellow crude at from 25c to 28c.

Karaya Very Firm

Gum karaya was very firm as a result of good demand, especially for higher quality material. Stocks in all respects were in strong hands and the tendency was to hold out for the full market price.

Japan Wax Easier

Shipment prices on Japan wax were slightly easier. The spot market, although quiet, held its recent price gain. Undertones were generally firm.

Arabic Slightly Higher

Gum arabic continued to reflect the present cost of replacement. Amber sorts was fractionally higher at from 8c to 8½c per pound and a firm undertone prevailed in the market during the entire period under review. Powder sold at from 11c to 15c without difficulty. White gum was unchanged but with an upward tendency noted.

Agar Fairly Active

The demand for agar agar has been fairly active and prices on spot were higher, notwithstanding the fact that Japanese exchange was lower. Number 1 agar sold at from 55c to 58c per pound and number 2 at from 45c to 49c.

Wahoo Bark Higher

Due to the difficulty in obtaining replacement stocks of wahoo root bark it was necessary for local dealers to advance prices to the basis of from 35c to 37c per pound. Inquiries in the primary brought reports that little or none of this material was being collected. A possible shortage is indicated.

Gum Mastic Firm

Although leading factors in gum mastic reported a light demand for this item during late trading, they generally held firm to the higher levels recently reached, namely 30c to 35c per pound. Stocks are not large locally.

Bayberry Wax Easier

Bayberry wax was easier at from 15c to 17c per pound due to the fact that there was practically no demand for this commodity and more than a sufficient supply of spot stocks. The small demand is a seasonable condition.

Stramonium Leaves Firm

Stramonium leaves were firmly held at 10c and 11c per pound. The item is said to be in a strong statistical position and the tendency on the part of some sellers was to advance quotations on business under negotiation.

Olibanum Firmly Held

Buying support from certain quarters supported the market for gum olibanum. Prices in all respects were firm. Siftings therefore, remained on the basis of 7c to 8c per pound.

Belladonna Steady

Undertones in belladonna are steady at the recently advanced levels. Leaves sold at from 12c to 15c per pound and the root at from 11c to 13c. Demand was no larger than it had been but fairly well maintained in volume.

Montan Wax Maintained

Although the past month witnessed a decline in exchange, the spot market for montan wax was well maintained without open price change. This was due to a very satisfactory call for prompt shipment and later delivery. Price of crude ranged from 7c to 8c per pound.

Tonka Beans Scarce

The minimum spot market price for tonka beans, Angostura, was $2.25 with the range to $2.50. Stocks on spot were exceptionally small and replacements difficult to obtain. Some lots of Surinams were obtainable at $1.35 but as a rule $1.50 was being asked. Demand was toward the routine.

Aletris Root Advanced

Aletris root was advanced on spot to the basis of from 17c to 19c per pound. Strong undertones continued to prevail being a reflection of the higher primary market and general reports therefrom. Supplies on hand were small and prospects for additions unsatisfactory.

Borage Flowers Strong

The position of borage flowers is said to be a forecast of a further advance in prices. The spot market continued at from 19c to 20c per pound but stocks are in small supply and could be obtained in the primary market only in limited quantities. The lack of a really active demand is what held the market in check.

Colocynth Quite Strong

Colocynth pulp was quite strong at from 13c to 14c per pound. Local stocks are small and demand showed improvement. This combination resulted in undertones favorable to sellers of the item.

Cascara in Japan

There are no definite figures available showing the domestic consumption of cascara bark in Japan, but estimates place the annual consumption at approximately 36,000 pounds. About one-third of this amount is of domestic supply, obtained from the Kiso Forest and Aomori Forest districts. Japanese drug manufacturers are utilizing both domestic and imported cascara bark in the manufacture of extract and tablets. (Assistant Trade Commissioner Howard B. Titus, Tokyo.)

Following is a list of imports detained by the Food and Drug Administration as being in violation of act governing product in question:

Week ending July 12 — to Week ending Aug. 2

Kamala powd	10	bags	Caraway seed	2675	bags
Coriander	2140	"	Mace	68	"
Celery	177	"	Cumin	102	"
Fennel	107	"	Mustard	300	"

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Abstracts

Determining Camphene in Pine Oil

Reflux excess of mixture of acetic acid containing 10% of a 50% sulfuric acid solution with oil to convert camphene into isobornyl acetate. Determine amount of unreacted acetic acid by titration with alkali, using first phenolphthalein and then tetrabromsulfonephthalein as indicators. I. M. Ezrielev and S. S. Magidova. Plasticheskie Massui 1932, p. 2-14, 11-13.

Identifying Alkaloids

With reagent prepared by dissolving 0.05g. $KReO_4$ in 5cc. water and making up to 100 cc. with concentrated sulfuric acid, the following color reactions are shown: morphine, gray, finally violet; codeine, yellow-green, finally violet; brucine, rose, finally orange; veratrine, yellow-green, finally red; piperine, red, finally black; quebrachamine, violet; cotarnine, yellow, finally gray; thebeine, brown; yohimbine, intense violet-blue; boldine, blue; chelidonine, grayish-green, finally violet; berberine, yellow, finally olive-green; apomorphine, grayish violet, finally violet; bulbocapnine, grayish blue; narceine, brownish yellow, finally bright yellow; picrotoxin, pale orange; colchicine, bright yellow; cryptopine, bluish violet; hydrastine, blue, finally grayish violet; narcotine, yellow, finally black; hydrastinine, bluish, finally grayish violet. M. S. Mokrantza. Bull. soc. chim. roy. Yougoslav. vol. 3, No. 3, p. 171-176.

New Vegetable Drugs

Pharmacognostic descriptions and uses are given of agar, ispghula (seeds of Plantago ovata), psyllium, corydalis, Peganum harmala, Digitalis lutea, D. lanata, ephedra, thyme, Kurchi (conessi) bark, mowrah seeds and derris root. T. E. Wallis. Pharm. J. vol. 129, p. 327-328, 351-352.

Keratin and Other Coatings for Pills

Methods for coating pills with keratin, salol or gelatin, and tests for disintegration in stomach and in duodenum are described. H. N. Dale. Pharm. J. vol. 129, p. 494-495.

Chlorine Gargle

Chlorine is lost rapidly when gargle is stored in white bottles; loss is about 10% in two days, 50% in eight days. In amber containers the loss is 2% in two days and 10% in eight days. F. R. C. Bateson. Pharm. J. vol. 129, p. 498.

Removing Nail Varnish

Amyl acetate has been used as solvent for cellulose ester varnish. Perfumed mixture of equal weights of acetone and ethyl lactate is recommended. H. S. Redgrove. Pharm. J. vol. 129, p. 519.

Eye Pomades

Detailed preparation of pomades containing following bases is described: (1) colloidal zinc hydroxide with ammonium ichthyolsulfonate; (2) 5% yellow precipitate; (3) novocaine with cocaine, methylene blue and adrenaline; (4) 10% white precipitate; (5) 5% noviform (the bismuth salt of tetrabromcatechol). Photographs showing degree of dispersion of particles indicate qualities of pomades made or examined. H. Golaz and R. Freudweiler. Schweiz. Apoth. Ztg. vol. 70, p. 493-496, 520.

Toxicity of Alcohols

Toxicity of purified alcohols to guinea pigs (as measured by inability to walk) is in following ascending order of toxicity: tertiary hexyl, secondary heptyl, secondary hexyl, tertiary amyl, secondary amyl, isoamyl, amyl, hexyl, butyl, secondary butyl, heptyl, isobutyl, teritary butyl, propyl, isopropyl, 96% ethyl, 100% ethyl, methanol. R. W. Hufferd. J. Am. Pharm. Assoc. vol. 21, p. 549-556.

Diothane as Local Anesthetic in Urology

Diothane (piperidylpropanediol urethan hydrochloride) appears to be less toxic and, with exception of nupercaine, appears to have greater anesthetic activity than local anesthetics commonly used. G. F. McKim, P. G. Smith, T. W. Rush and T. H. Rider. J. Urol. vol. 29, p. 277-283.

Purifying Castor Oil of High Acidity

Satisfactory results were obtained by treating castor oil of high acidity with ammonium hydroxide and magnesium sulfate. G. Petrov and A. Pichugin. Masloboino-Zhirovoe Delo 1932 No. 3, p. 36-42.

Oil of Lavender

Density and refractive index of freshly distilled oil of lavender are appreciably lower than normal values. Under ordinary commercial conditions, rise of these constants is rapid and normal values are reached in a few days; in complete absence of air rise is very slow. Composition of oils obtained in laboratory tests in small experimental stills is quite different from that of oils obtained on commercial scale. Experimental distillation of three lots of flowers gave oils with following composition: d_{15} 0.8994, 0.8912, 0.8972; [d] —7°55′, —8°44′, —8°40′; n_{20} 1.4562, 1.4547, 1.4559; acid value 0.42, 0.42, 0.42; ester number 212.1, 194.6, 195.65; esters 74.24, 68.11, 68.48%; ester number after cold formylation—, 267.05, 254.2; free alcohols—, 23, 18.44%; oxygenated compounds—, 91.1, 86.92%; solubility in 66% alcohol insoluble in 20 volumes, soluble in six volumes, soluble in nine volumes; solubility in 70% alcohol soluble in 7.2 volumes, —, soluble in 2.5 volumes. Oil distilled commercially from the same lots of flowers contained 43-46% esters. Etablissements Antoine Chiris. Parfums de France. vol. 10, p. 296-297.

Physiological Assay on Gold Fish

The use of gold fish in the assay of glucosides, alkaloids, poisons, and antitoxins affords an excellent laboratory method which is very accurate and is more easily controlled and more economical than any other method of physiological assay in vogue. Gold fish weighing from 1.0-1.5 g. and placed in 500 cc. water functions exactly as guinea pig weighing 500 g. and there are fewer factors of error in its use. Gold fish may also be used in place of frogs in similar tests. V. A. Lapenta. Proc. Indiana Acad. Sci. vol. 41, p. 445-448.

New Sage Oils

Certain new varieties of this oil are described, notably from Salvia korolkovi Rgl. et Schmalh., which contains 2-betapinene about 25%, cineole about 34%, camphor about 3%, free borneol about 10%, bornyl acetate about 1%, carophyllene about 20% and sesquiterpene alcohol about 0.6%. B. N. Rutovskii and K. Sabrodina. Riechstoffind. 1932 vol. 7, p. 174-175.

Testing Adhesive Tape

Apparatus described for determining adhesive power of tape. Certain standards are postulated referring to quantity of rubber and zinc oxide to be used, and to quality of ribbon. A. Goris and A. Chalmeta Bull. sci. pharmacol. 1932 vol. 39, p. 598-603.

Determination of Theobromine

Boie method of precipitating theobromine with silver nitrate and titrating liberated nitric acid was compared with official iodometric method and with Kjeldahl nitrogen determinations and found to be satisfactory. H. J. van Giffen. Pharm. Weekblad. vol. 69, p. 1321-1325.

Quick Testing for Mercury

Method depends upon oxidation of aluminum by mercury compounds, sodium thiosulfate being used as working medium. Salve (0.1 g.) is weighed into test tube about 10 cm. long and add 2 cc. 5% potassium hydroxide and 2 cc. 25% sodium thiosulfate (0.5 g. $Na_3S_2O_2$). Heat over small flame for 30 seconds. When solution is boiling, remove test tube from flame and insert strip of aluminum (12 cm. long, 5-6 mm. wide, 0.2-0.3 mm. thick). Strong foaming takes place. After foaming stops, again heat test tube slightly. Remove aluminum foil, rinse with water, and wipe with dry cloth. If mercury is present, aluminum foil is covered with white layer of oxide. On prolonged exposure, lower part of foil may become gray. If no mercury is present, aluminum remains clear. E. Tornow. Angew. Chem. vol. 45, p. 707-708.

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Identification of Flavoring Constituents of Commercial Flavors

Certain constituents of commercial flavors are separated into classes and following fractions obtained: 1. non-volatile constituents: a. esters, alcohols, lactones and other inactive constituents; b. higher fatty acids, benzoic acid, cinnamic acid; c. vanillin, ethyl protocatechualdehyde and phenols; 2. volatile constituents: d. sodium salts of free volatile acids; e. semicarbazones of aldehydes and ketones; f. free and combined alcohols; g. lactones and anhydrides; h. sodium salts of acids combined as esters. In addition, method gives approximate quantities of free volatile acids (as acetic acid), aldehyde or ketone, volatile esters and lactones (as ethyl acetate). J. B. Wilson. J. Assoc. Official Agr. Chem. vol. 15, p. 635-642.

Report on the Analysis of Flavors and Non-Alcoholic Beverages

The following method for the determination of essential oils in extracts and toilet preparations has been used successfully for some time in the U. S. Bureau of Industrial Alcohol; pipet 10 cc. of the sample (5 cc. when the oil content exceeds 5% by volume) into a Babcock milk bottle, add 0.5 cc. of a 1:1 mixture of mineral oil U. S. P. and water-free kerosene and 1 cc. of hydrochloric acid (1:1), fill to the shoulder with saturated salt solution, shake 3 minutes, add salt solution to bring the oil column within the graduations, centrifuge at high speed for 10 minutes, read the oil volume. J. B. Wilson. J. Assoc. Official Agr. Chem. vol. 15, p. 538-540.

Tests for Peru Balsam

Since quantitative examination of Peru balsam is insufficient for detection of adulterants, an investigation of qualitative tests in general use was made. Eight of these tests are described and table is given of results obtained with 17 samples of Peru balsam. Table showing chief adulterants detected by tests is included. E. M. Smelt. Quart. J. Pharm. Pharmacol. 1932, vol. 5, p. 378-389.

Determination of Aspirin

Method depends upon colors produced by action of reagent on phenolic group of compound. To sample containing 5 mg. aspirin add 3 or 4 drops of ammonia, then 5 cc. water; shake to dissolve aspirin then add two drops of 1% solution of blue vitriol and 3 or 4 drops of hydrogen peroxide solution (8-10 volumes). Orange-red color is produced, shade depending upon amount of aspirin present. Boil mixture and add 3 or 4 drops hydrogen peroxide to intensify color and cause it to deepen to brown. Compare with colors produced in sample containing known amount of aspirin. G. Deniges. Bull. soc. pharm. Bordeaux 1932 vol. 70, p. 182-183.

Determining Caffeine

Measure turbidity produced on adding sodium phosphtungstate to caffeine solution. When properly carried out, method is reliable and more sensitive than any other known method for determining caffeine. It permits determination of caffeine in single leaf or coffee bean. E. Herndlhofer. Mikrochemie 1932 vol. 12 p. 227.

Determination of Theobromine

Eight g. finely ground cacao, extracted with petroleum ether, is treated with dilute sulfuric acid and warmed for 20 minutes; then 5-10 g. magnesia suspended in water is added. Mixture is heated to consistency of paste, dissolved in 100 cc. chloroform with 10% alcohol, 75 cc. is filtered off and evaporated until all alcohol is expelled. Residue is washed by decantation with petroleum ether and alcohol, transferred to filter, dried and weighed. Purity of theobromine is determined volumetrically by dissolving 0.2 g. in 20 cc. 5% ammonia water and concentrating it to 5 cc. with 5 cc. tenth normal silver nitrate. The concentrate is acidified with 30% acetic acid, filtered, washed and titrated with the filter, according to Folgard. One cc. tenth normal silver nitrate is equivalent to 0.0180 g. theobromine. N. S. Goryainova. Khim. Farm. Prom. vol. 6, p. 227-228.

Herba Mate

Comparison was made of absorption spectra of herba mate, tea and coffee to detect falsification of botanical. Thus extraction of herba mate with water, 100 parts at 95° C. for 10 minutes gives solution of absorption band from 270 to 350 milli-mu maximum at approximately 315° C., but it does not show caffeine band. Tea and coffee extracts show caffeine but not herba mate band. Absorbing substance of mate is sensitive to alkali. It is absorbed by basic lead acetate and can be separated from absorbent by means of sulfuric acid and hot ethyl acetate. It is probably identical with chlorogenic acid. Absence of typical band denotes falsification of mate, but presence does not exclude adulteration. J. Eisenbrand. Archiv der Pharmacie, 1932, volume 270, pages 369 to 374.

Morphine Hydrochloride Assay

Morphine is not extracted with ether when sodium hydroxide is employed not less than 15%. When 30% sodium hydroxide is used, and mixtures of hydrochlorides with morphine hydrochloride, ether extracts codeine 98%, narcotine 95%, papaverine 92%, thebaine 97%. Benzene extracts codeine 97%, narcotine 97%, papaverine 98.5% and thebaine 95.5%. E. Y. Stuber and B. A. Klyachkina. Bull. Nauch. Isseldov. Khim. Farm. Inst. Russia, 1930, pages 37 to 40.

Alkaloids from Russian Flora

Anabasis aphylla affords lupinine and anabasine, $C_{10}H_{14}N_2$, isomeric with nicotine and affording nicotinic acid on oxidation. Peganum harmala and Banistenia Caapi contain harmine and harmaline. Alkaloids are present also in Leontice ewersmannii, Saussurea frolowii, Alchagi camelorum and Sophora pachycarpa. A. P. Orekhov. Bull. Bauch. Issledov. Khim. Farm. Inst., 1930, pages 3 to 4.

Saffron Adulteration

Starch granules can be detected microscopically. Sucrose can be detected by determining amount of invert sugar present before and after treatment to obtain inversion, since this value should not change more than 1.5-2.0% if the saffron is pure. Glucose as an adulterant can be estimated only by quantitative aqueous extraction. Pure saffron contains about 22-24% (dry basis) of reducible substances when estimated in this manner. Bodinus. Chem.-Ztg. vol. 56, p. 741-742.

Microchemistry of Phenylcinchoninoylurethane

This product is also known as fantan. Latter was tested with acetone and acetic acid and 2 parts of chloroform were added to assist evaporation, and dissolution. Typical crystals are obtained and microreactions are same as for cinchophen. G. Deniges. Bull. Soc. Pharm. Bordeaux, volume 69, pages 236 to 239.

Determining Quinine Salts

Method has been worked out for determination of quinine salts, that is hydrochloride and sulfate, in resinous medium in capsules. Capsules were triturated with excess of magnesium nitrate solution. Solution was then evaporated and ignited. Chloride and sulfate in residue were determined by usual methods. Other methods of analysis were shown to be unsatisfactory. V. Brustier and P. Domergue. Journal de Pharmacie et de Chimie, volume 16, section VIII, pages 112 to 115.

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Evaluation of Digitalis Tinctures

Tinctures were prepared with absolute alcohol or dilute alcohol. They were tested by 24 hour frog method and were found to give practically equal values. However, tincture, which was prepared with dilute alcohol, gave higher value by cat method. When same menstruum was employed, percolation and maceration processes gave similar values. A. Stasiak and B. Zboray. Magyar Gyog. Tarsas. Ert., volume 8, pages 142 to 150.

Capillary Analysis

Study was made of aid that can be afforded by capillary analysis in evaluation of fluid extracts. Distinctive phenomena were described for extracts of cascara sagrada, frangula root, liquiritia officinalis, aconitum napellus (leaves and roots) and belladonna. Method of preparation was found to affect colorations with kola nut extracts. H. Schmidt-Hebbel, Pharmazeutische Zentralhalle, volume 73, pages 689 to 792.

Citral in Lemon Oil

Hydroxylaminehydrochloride method recommended by British essential oils subcommittee is simple, practical and sufficiently accurate for all commercial and industrial purposes. C. Lagneau. Ann. fals. vol. 26, p. 87-90.

Zinc Stearate in Cosmetics

Method for estimating zinc stearate in powders is based on solubility of stearate in benzene or trichlorethylene by continuous extraction under reflux, with subsequent ignition of isolated zinc salt and weighing as zinc oxide. J. Wuhrer. Apoth. Ztg. vol. 48, p. 123-124.

Dispensing Liquids

An illustrated paper showing various devices for pouring and dispensing liquids from their containers, as dropping bottles, cylinders, etc. H. Lepke. Apoth. Ztg. vol. 48, p. 259-262, 276-279.

Orbinal

This powder preparation, allegedly a hypnotic or sleep-inducing product, is shown to be essentially sodium pyrophosphate. C. A. Rojahn and J. A. Muller. Apoth. Ztg. vol. 48, p. 310.

New Commercial Rhubarb

This new rhubarb bearing name "Tai Hwang" contains rhaponticin. Its sale in German drug stores is not permissable. S. Tukats. Pharm. Monatsh. vol. 14, p. 35-36.

Evaluating Drugs by Odor & Taste

Emphasis is laid on possibility of evaluating both qualitatively and quantitatively certain drugs by virtue of their taste and odor. R. Wasicky Pharm. Monatsh. vol. 14, p. 31-35.

Preparing Tinctures

Process discussed involves maceration of crude over five days at most, resulting tincture being satisfactory in every respect. J. A. Marschak. Pharm. Zentralhalle vol. 74, p. 145-148.

Estimating Morphine

Essential feature in method consists of treating morphine-containing material with mixture of basic lead acetate and calcium hydrate before extracting alkaloid. L. David. Pharm. Ztg. vol. 78, p. 163.

Storage of Nux-Vomica

Various storage conditions have been studied and under none of these is there any marked deterioration of alkaloidal content. Seasonal variation shows only slight decrease in alkaloidal content in months of March and April. Mycological examination shows that fungal attack is only on outside silky coat and does not penetrate into horny portion of button. S. V. Puntambekar and S. Krishna. Quart. J. Pharm. Pharmacol. vol. 5, p. 633-638.

Color Reaction of Geranium and Rhodinols

Dissolve five drops of sample in 2cc. chloroform, then add to warm solution 0.5-1.0cc of 10% solution of bromine in chloroform. After some minutes an intense blue-green color develops indicative of geranium oil or incompletely purified rhodinol. S. Sabetay. Riechstoffind. vol. 8, p. 26-27.

Laudanum of Sydenham

Comparison of different methods of preparation leads to recommendation of following modification: 10% increase of opium powder, as in French Codex of 1920, elimination of saffron and essences, extraction by lixiviation for 24 hours, after previous maceration of 24 hours with addition of washed sand to powder. J. E. Machado and J. Sonol. Rev. Farm. (Buenos Aires). vol. 75, p. 3-21.

Carbolic Acid Water

A solution containing pure phenol 20, cyrstallized boric acid eight and water 1,000 g. remained unchanged for 18 months. Vergez. Bull. soc. pharm. Bordeaux vol. 2, p. 144.

Incompatibility of Borax and its Eradication

In cold creams containing mercuric chloride and aqueous borax socution (for bleaching purposes), a red coloration is likely to develop because of formation of mercury oxychloride. This is prevented by addition to cream of benzocaine in suitable amount. Ar. Mihalovici. Pharm. Zentralhalle vol. 74, p. 196.

Toxicity of Old Samples of Anise Oil

Sample of anise oil was stated to have caused death of two cows after external application. Oil had neutral reaction and was free from foreign substances but could not be made to crystallize. When oil was rubbed on skin of two mice they died in 12 hours. Two other samples of oil that were so old they could not be made to crystallize were also toxic. Nature of toxic substance has not been discovered, but it is known that action of light and air on anise oil cause chemical changes. B. Samdahl. Norsk Farm. Tids. vol. 40, p. 66.

Copper in Pharmaceuticals

Newly developed, sensitive test was applied to 70 different preparations. Those evaporated in copper vessels such as soft and dry extracts, are ones most seriously contaminated with copper. In view of recent observations on value of traces of copper in hemoglobin formation, it is unlikely that these amounts of copper would prove harmful. N. Evers and L. A. Haddock. Quart. J. Pharm. Pharmacol. 1932, vol. 5, p. 458-460.

Phenol in Nasal Antiseptics

Tablets are often deficient in phenol and loss is so great that it is advisable to discontinue their use as nasal antiseptic tablets. Phenol lozenges prepared by Brit. Pharm. 1914 and Brit. Pharm. 1932 processes do not contain approximately 0.5 g. phenol in each lozenge and standard is suggested in which weight of lozenge should be within certain limits, and percentage of phenol in bulked lozenges not less than 1.75%. E. M. Smelt. Quart. J. Pharm. Pharmacol. 1932 vol. 5, p. 504.

Patents

UNITED STATES PATENTS

Crystallized Digitalis Glucoside

A new and highly physiologically active glucoside is obtained by separating components soluble in chloroform and alcohol, respectively, dissolving remainder in acetone and causing crystallization from acetone solution. C. U. F. Mannich. U. S. P. 1,898,199, filed Sept. 23, 1929.

Antipyreptic Composition

Amidopyrme and boric acid are used together, preferably in proportions of one and five molecules, respectively. W. G. Christiansen and A. E. Jurist. U. S. P. 1,898,002, filed Sept. 13, 1930.

Germicidal Compounds

These are dialkyl resorcinols containing two alkyl groups, one with three or more carbon atoms, substituted in benzene nucleus. W. G. Christiansen and S. E. Harris. Ass. E. R. Squibb & Sons. U. S. P. 1,897, 188, filed July 7, 1932.

(Continued on page 206)

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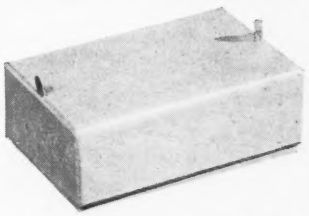
by "Duff" Gordon

"CAPLESS TUBE" PROVEN SUCCESS AFTER A YEAR'S TRIAL!

Just a little over a year ago Pack-Urges featured a "Capless" tube, suggesting it as the ideal container for tooth pastes, creams, and pastes—by virtue of its eliminating for all time the "lost" tube cap problem—or the costly item of leakage on shipments for foreign climes. Much publicity resulted—and a tooth paste that adopted the new closure reported "success" from the outset.—Now—more than a year later—we have tubes which were filled and numbered for later tests—others in use for twelve months—and these samples prove beyond question that the "Capless" tube overcomes many bothersome questions; is economical to manufacture, as it eliminates cap costs; lives up to its guarantee of automatic closure after each time it is used; and gives manufacturers of tooth paste, shaving cream or what have you, an additional advertisable feature for their products. We are predicting a continued success for the "Capless" tube and will send you samples to prove our point. Write us now for costs and proofs of our statements as to its success.

• • •

MAILERS FOR EVERY PURPOSE



The mailing box illustrated here is just one style of the wide range of "Gordon" Mailers, suitable for every type of sampling campaign . . . Some are corrugated lined—others have sealed flaps—all are approved by the United States Postal Service . . . Show us what you want to mail and we'll build a box around it that will deliver your product in perfect condition . . . Prices are moderate . . . Workmanship unexcelled . . . A call will bring you full particulars.

• • •

PERFUME AND POWDER BOXES

Every perfumer knows that boxes for Perfumes, Cosmetics and Toilet Preparations should have a note of individuality *built into the box.* Style trends and interior decorative preferences are but two of the many phases which we keep in mind when making boxes for the cosmetic trade . . . The only set-up box included in the best All American Twelve Packages was handled in detail by us (designed by Mrs. Avery Robinson)—just another example of our ability to interpret your ideas in definite salable boxes. Call us in on your next box purchase . . . We'll serve you right—and save you money.

"Pack-Urges" is issued occasionally in the interests of better packages. If you wish to receive it regularly it will be sent free upon request. Address: ***H. R. M. Gordon*** *—A Complete Packaging Service—****341 Madison Ave.*** *(Phone Murray Hill 2-1626) New York.*

*Copyright and trade-mark applied for

Analyzing the New Drug Act

(*Continued from page 174*)

Department's Analysis

drugs and cosmetics, who, if the goods conform to the requirements of the Act, will permit the use of marks showing compliance with the Act and such other information as the regulations may provide. Such services to be paid for by applicant, and proceeds to be turned into the treasury for use by the secretary in expenditures incurred in carrying out this section.

Sec. 23. Secretary authorized to prescribe rules and regulations for carrying out the provisions of the act except those relating to imports. Secretaries of Treasury and Agriculture authorized to prescribe regulations covering imports. Sections 9 and 10 of Federal Trade Commission act incorporated by reference.

Supplemental Analysis

expense of maintaining the vast number of inspectors and supervisory inspectors to be employed by the Department. Secs. 12 and 13 can easily be enforced in such a way that manufacturers, processors and the like will find it to their advantage to "voluntarily" apply for the "Voluntary Inspection Service" in which case they will be obliged to pay such fees as may be "fixed by regulations of the Secretary in such amount as to cover the cost of the supervisory inspection and examination, together with the reasonable costs of administration." Since the Department will not have to bear any part of the cost, the supervisory inspectors can be well paid and a manufacturing concern can reasonably expect to have a supervisor the year around supervising the operation and management of the plant. This is a bad provision designed to build up an immense army of supervisors through whom the Chief of the Food, Drug and Cosmetic Control can exercise the powers of a Czar over the Food, Drug and Cosmetic industries. To tempt manufacturers to apply voluntarily for this "Voluntary Inspection Service" the Bill provides that by doing so they may become entitled to affix a sort of Seal of Approval of the Department on their products, a good bit like the seal of the American Medical Association now carried by some drug products; it is reasonable to expect that public money will be spent, under Sec. 21 to educate the public to buy only products that bear such seal or certificate, and that after a considerable number of manufacturers have applied for the "Voluntary Inspection Service" most others will feel it necessary to do so. (See Secs. 12, 13 and note following Sec. 13, above.)

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We have ideal facilities for the manufacture of a limited number of high grade products for discriminating buyers. You are assured of the same careful chemical control which is exercised in the making of our specialties. We believe that quality is of paramount importance in the production of any pharmaceutical.

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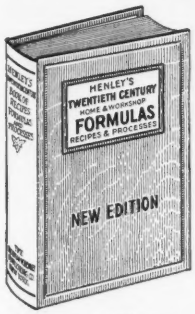

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THE ILIFF-BRUFF CHEMICAL COMPANY
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Birmingham New York
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More New Medicines

(*Continued from page 116*)

Ferrostabil—Stabilized preparation of ferrous chloride. Sugar-coated pills, 0.059 gram per pill. Ferrous chloride is the most particularly physiological of all iron compounds, because all iron preparations, in so far as they have any physiological action, are broken down to ferrous chloride form in stomach and then absorbed. New compound is very stable. For all forms of poor-blooded condition, particularly in chlorosis as well as *secondary anaemias; also after severe loss of blood* after operations, childbirth, severe menstrual bleeding. Dose 2 sugar-coated pills 3 to 4 times *daily after meals.* Schering-Kahlbaum A.G., Berlin.

Promptex—Brownish powder and brownish tablets in packages containing 25, 50, or 100 cc. and *100 or 200* tablets. Contains cassia angustifolia seeds dried by special process, active substance (oxymethylanthraquinone) *being ground, fermented* and treated with *ultra-violet light.* For constipation and resulting disturbances, darmatonia, meteorismus. *"Bucopa" Buberik & Co., Pasing b. Muenchen.*

Rectamin—Haemorrhoidal salve. Brownish paste in tubes. Contain 35 grams tannic acid. 35 *grams boric* acid, 20 *grams* para-aminobenzoic acid ethyl ester, 4 grams extract of witch hazel, 4 grams extract of belladonna, 5 *grams menthol*, 1.5 grams bismuth subgallate, 20 grams aluminum aceto-tartrate and sufficient petrolatum and lanolin to make, *1500 grams. For haemorrhoides.* Aktiensgesellschaft fuer Medizinische Produkte, Berlin.

Noviode—White tablets, in glass tubes containing 20 tablets. Contains 0.06 gram potassium iodide, 0.0065 *gram potassium iodate and 0.125 gram excipient consisting of tartaric acid, boric acid, sodium* carbonate or sodium bicarbonate. Each tablet produces 2.5 cgm. of nascent *iodine in aqueous solution. For iodine* therapy. Laboratoires Salvoxyl, Paris, France.

Balsamette—Yellowish *green liquid with pleasant odor, sp. gr.* 0.8733. Contains mineral oil about 90 to 92%, and 7 to 8% essential oils, such as peppermint, *eucalyptus, pine, lavender.* For unpleasant conditions arising in menstrusation. Acts as cooling and deodorizing agent. Balsamette, Paris, France.

Pulvhydrops—Contains 3.0 grams licorice root, 7.0 grams fennel seed, 25.0 grams extract of angelica root, *20.0 grams rhizoma graminis*, 10.0 grams lovage root, 3.0 grams potassium sulfate, 8.0 grams sodium sulfate and 8.0 grams squill. For cardiac asthma, dilation of heart, cirrhosis of liver. Apotheker W. Boehmer, Hameln a.d. Weser, Germany.

Pless Pillen—Chocolate-colored, sugar-coated pills. Contain acetylo-glycocoholic acid, calcium carbonate, *fel tauri siccatum (dried oxgall).* For hyperacidity, stomach pains, gas pressure in stomach, heartburn, spoiled stomach. Dose 4 pills 3 times daily, swallowed whole *mixed* with warm drink. Delphas G.m.b.H., Berlin-Wilmersdorf.

Priolat—Clear, brownish liquid. Contains primrose root, sweet violet root and common thyme. For pharyngitis, angina pectoris, tonsilitis, laryngitis, tracheitis, tracheo-bronchitis, bronchitis, broncheolitis, pertussis, bronchial spasms, bronchial asthma, bronchial pneumonia, pulmonary tuberculosis and like. Laboratorium fuer angewandte Pharmakochemie, Immenstadt, Bayern.

Priolat Tee—Contains flores verbasci-primulae, -sambuci-tiliae-malvae, folioae, farfare-malvae, fructus anisi cont., herba equiseti, radix althaeae liquiritae, and *rhizoma graminis. For pharyngitis, angina pectoris,* tonsilitis, laryngitis, tracheitis, traceho-bronchitis, bronchiolitis, bronchial spasms, pertussis, bronchial asthma, *bronchial pneumonia, pulmonary tuberculosis and like.* Same maker.

Duochin—Capsules. Contain quinine-phenylcin-chonine, *sodium scopolamine-diethyl-barbiturate, codeine,* acetphenetidine, amidopyridine-strontium sulfosalicylate. Antidolorosic in painless childbirth. Dr. O. and Dr. R. Weil, Frankfurt-am-Main, Germany.

Pyrestaesin Siegfried—Combination of one molecule of aminobenzoic acid ethyl ester and one molecule of dimethylamino-phenyldimethyl-pyrazolone. Apotheker Michalowsky, Berlin.

Acitrop—Contains ammonium chloride in easily and agreeably administered form. Treating bone swellings, boils, suppurations, empyemia, abscesses, phlegmones, *osteomyelitis, lymphadentiditis, burns, chronic diseases* of mucuous membrane of nose, bronchial troubles, bronchial asthma, pyelitis and zystitis, epilepsy and tetanus, also cardiac hydropsy, cardiac decompensated nephroscleroses, nephroses such as gout, rheumatism *with formation of exudates.* Institut fuer Angewandte Hygiene G.m.b.H., Hamburg.

Alkalitrop—Salts of lactic acid, malic acid, citric acid and other fruit acids. For arterial high blood pressure, chronic kidney troubles, superacidity of stomach, *stomach ulcers, stomachic and intestinal pains,* heartburn, diabetes mellitis, gout, subacute and chronic rheumatism, Basedow's disease, hay fever, eczema, urticaria, pruritus, acne vulgaris, frost-bite, disturbances of sweat-glands, impure and oily skin. Same maker.

Splat Tabletten—White tablets with center split. Contain amidopyrine, caffein, benzylsuccinate and phenaceitin, and starch. For headaches. Dose, one tablet in water. Dr. Ballowitz & Co. Chemisch-Pharmazeutische Fabrik G.m.b.H., Berlin-Pankow.

Stephoset—Tablets. Contain gold iodide, calomel, sulfur and thuja (arbor vitae) in homeopathic dilution. For gout, lithiasis, uric acid diatheses, syphilitis, tuberculosis, carcinoma, affections of kidneys and bladder, gonorrhoea, womb troubles, constipation, meteorismus, acne, psoriasis, *ulcus cruris. Dose one to two tablets* half hour before meals, placed dry on tongue. Three times daily. Dr. Willmar Schwalbe, Leipzig.

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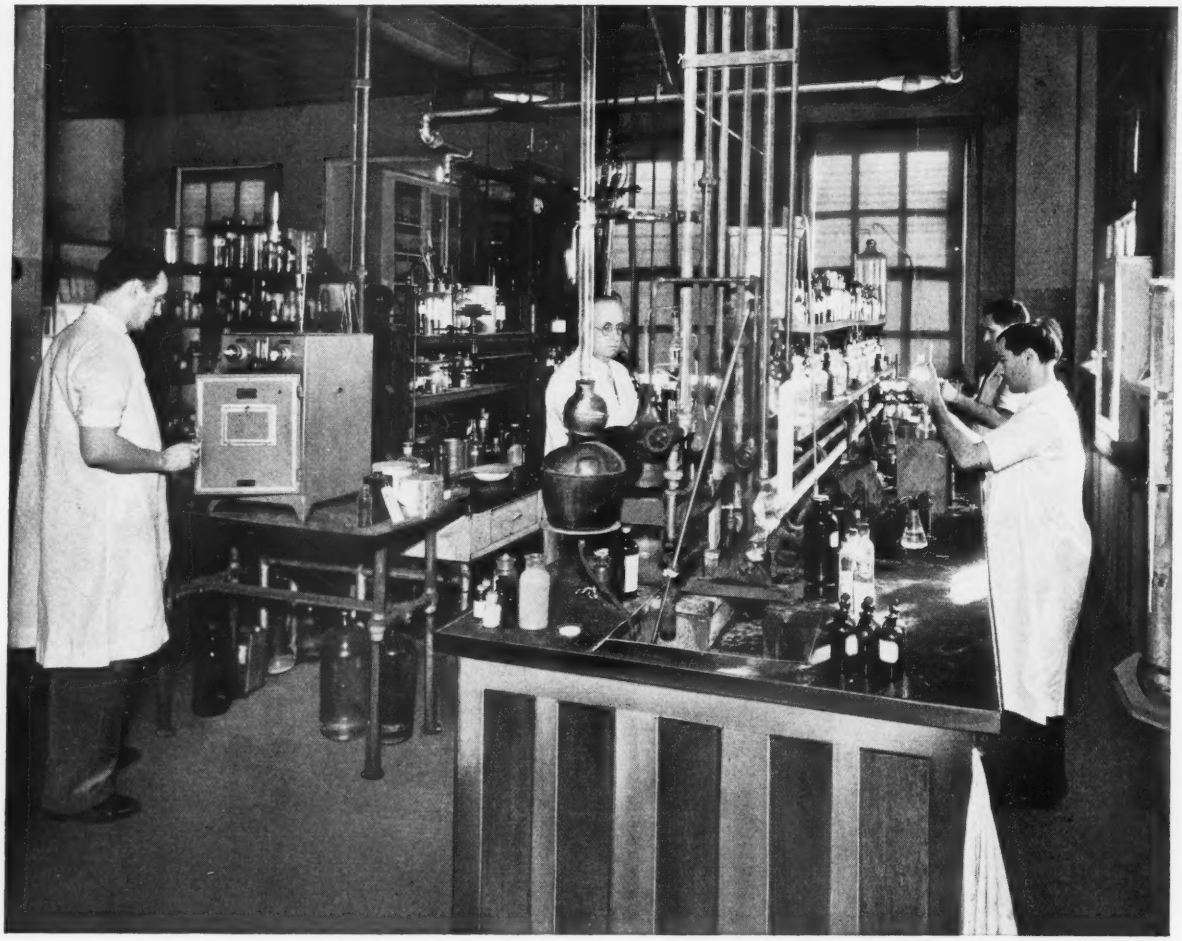

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(Gran. and Powd.)
Potassium Iodide
(Cryst.-Gran. and Powd.)
Quinine Sulphate
and other Quinine Salts
Strychnine Alkaloid
Strychnine Sulphate
Thymol Iodide

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Medicinal, Aromatic, and Photographic Chemicals, Crude Drugs, Spices, Essential Oils and Concentrates, Miscellaneous Raw Materials, etc.

Chemical prices quoted are of American manufacturers, spot New York, f. o. b. for immediate shipment, unless otherwise specified.

Products sold f. o. b. works are so specified. Imported chemicals are so designated. Resale stocks, when a market factor, are indicated "second hand."

Crude Drugs and Essential Oils are quoted f. o. b. New York (Manhattan with limitations) for immediate shipment

The range of price given is not "bid and asked," but are prices of different sellers, based on varying grades and/or quantities. Containers named are original packages most commonly sold.

Chemicals

Acetanilid
Iodide

Acetanilid, USP, 200 lb bbls..lb	.26	.27
Acetone, pure 350 lb drs wks..	.10	.11
Acetphenetidin, 225 lb bbls..lb.	1.20	1.25
ACID, Acetylsalicylic, 225 lb ..... bbls.	.70	.75
Agaric, 1 oz vials.....oz	...	3.50
Arsenous, USP, 220 lb bbls lb.	...	.18
Benzoic, USP, 100 lb bbls.lb.	.48	.52
Boric, 300 lb bbls.....lb.	.07	.08
Cacodylic, 5 lb. bot.....lb.	...	8.00
Camphoric, USP, VIII 1 lb bot.....lb.	4.82	4.82
Carbolic, USP, crys 112 lb tins.....lb.	.17	.18
Cinnamic, 5 lb cans.....lb.	2.85	3.25
Citric, USP, crys 230 lb bbl lb	...	.29
USP, crys imp. 112 lb keg .....lb.	.34	.36
USP, powd 200 lb bbl...lb.	...	.31½
Gallic, USP, 150 lb bbls..lb.	...	.74
Glycerophosphoric, 25% 1 lb bot.....lb.	1.40	1.75
Hydriodic, USP, 10% 5 lb bot.....lb.	...	.59
Hydrobromic, USP, 40% 155 lb. cbys.....lb.	...	.55
Hypophosphorous, USP, 30% .....lb. 5 gal demis.....lb.	...	.75
Lactic, USP, VIII 100 lb cbys lb.....	.53	.55
USP, X 100 lb cbys.... lb.	.55	.57
Phosphoric, USP, Syr 70 lb drs.....lb.	.14	.15
Pyrogallic, crys 5 lb cans..lb.	1.30	1.40
Resublimed, 5 lb cans...lb.	1.60	1.70
Salicylic, USP, 100 lb bbls.lb.	.40	.45
Stearic, double pressed, bags .....lb.	.08½	.09
Triple pressed, bags,....lb.	.11¾	.12½
Succinic, 100 lb bbls.....lb.	...	1.35
Sulfurous, USP, 6% 100 lb cbys.....lb.	.05	.06
Tannic, USP, fluffy 50 lb bbls. .....lb.	.80	.83
Powd 200 lb bbls.....lb.	.70	.75
Tartaric, USP, 300 lb bbls.lb	.24	.24½
Aconitine, Alk, crys 1 oz vials .....oz.	...	29.00
Amorphous, 1 oz vials....oz.	...	17.00
Agaricin, 1 oz vis incl.....oz.	...	2.32
ALCOHOL, Benzyl, 5 lb bot lb. F. O. B. Works.....	1.20	1.35
Ethyl, USP, 190 pf 54 gal drs.....gal.	...	2.535
Grain U. S. P. bbls....gal.	...	2.565
Pure tax free drums...gal. Ethyl.....	...	.445
Grain.....	...	.475
Denatured, (drums included) add 5c for bbls. No. 1 spec.....gal.	.335	.415
No. 5 comp.....gal.	.34	.42
23 a, spec.....gal.	.37	.49
39 b, spec.....gal.	.38	.50
40 m. spec .....gal.	.34	.46
Isopropyl refd 98-99% drs. incl.....gal.	.55	.60
Phenylethyl, 1 lb bot.....lb.	4.30	4.50
Aloin, USP, 100 lb cases....lb.	.77	.82
Aluminum Acetotartrate kegs .....lb.	...	1.60
Amidipyrine, 10 lb boxes....lb.	4.00	4.10
AMMONIUM, Acetate 100 lb kegs.....lb.	.26	.33
Benzoate, USP, 1 lb bot...lb.	...	1.27
Borate, 10 lb bot.....lb.	...	.35
Bromide, USP, 450 lb bbls.lb.	.35	.36
Carb, USP, lump 150 lb kegs .....lb.	...	.11
USP, powd 150 lb kegs..lb.	...	.12
Citrate, 100 lb kegs.....lb.	.90	1.30
Ichthyolate, as to brand..lb.	4.00	4.50
Iodide, USP, 25 lb jars...lb.	...	4.25
Phosphate, dibasic 250 lb bbls .....lb.	.48	.50
Salicylate, USP, 100 lb kegs .....lb.	1.15	1.20
Valerate, USP, 25 lb jars...lb.	2.75	2.90
Amylene Hydrate, 1 lb bot..lb.	...	7.10
Antipyrine, USP, 100 lb cans.lb.	2.00	2.50
Apomorphine Hydrochloride, ¼ oz. vials.....oz.	24.60	22.70
Arecoline Hydrobrom, 1 oz vials .....oz.	4.75	5.00
Aspidospermine Amorphous..oz.	...	15.00
Atropine Alk, USP, 1 oz. vials oz.	5.25	5.50
Methyl bromide, 1 oz vials.oz.	...	25.00
Sulfate, 5 oz cans.....oz.	...	2.50
Single ounce.....oz.		3.00
Barbital, 1 lb. bot.....lb.	3.75	3.85
Barium Iodide, 5 lb box.....lb.	...	4.35
Sulfate, X-ray diagn bbls..lb.	.09½	.10
BAY RUM Porto Rico, 45 gal. bbls.....gal.	.75	.80
Domestic syn. 50 gal bbl..gal.	.70	.75
St. Thomas, 50 gal bbls...gal.	.80	.90
Benzocaine 25 lb. lots..... 1 lb.l ots.....lb.	5.00	5.75
Benzonaphthol, 5 lb boxes...lb.	2.50	2.60
Benzoyl Cholride, 500 lb dr..lb.	1.00	1.05
Benzyl Benzoate, Medicinal FFC.....lb.	1.20	1.40
Chloride Redis, 160 lb cby.lb.	.30	.35
Formate, 1 lb bot.....lb.	3.25	3.50
Succinate, 160 lb cby.....lb.	...	5.25
BISMUTH, metal 100 lb cases .....lb.	...	.95
Ammon. Citrate, USP, 5 lb cans.....lb.	...	3.30
Betanaphtholate, 5 lb box.lb.	...	2.90
Citrate, USP, 5 lb cans....lb.	...	2.55
Chloride..... .....lb.	...	2.55
Hydroxide .....lb.	...	2.95
Nitrate, 25 lb jars.....lb	...	1.10
Oxide anhydrous.....lb.	...	3.25
Oxychloride, 25 lb boxes...lb.	...	2.80
Salicylate, 25 lb boxes....lb.	...	1.70
Subcarbonate, USP, 25 lb boxes.....lb.	1.45	1.58
Subcarbonate, X-ray diag 1 lb. bot.....lb.	2.59	2.66
Subgallate, USP, 25 lb boxes .....lb.	1.50	1.63
Subiodide, 5 lb lots.....lb.	...	4.05
Subnitrate, USP, 25 lb jar.lb.	1.25	1.38
Subsalicylate, USP, 25 lb boxes.....lb.	2.30	2.35
Tannate.....lb.	...	2.22
Borax, crys USP, 400 lb bbls.lb.	...	.04½
Bromoform, USP, 5 lb bot cases .....lb.	1.65	1.90
Butylchloral Hydrate bot....lb.	4.00	5.00
Cadmium iodide, 10 lb bot...lb.	...	3.65
CAFFEINE Alk, USP, 1..... 100 lb kegs.....lb.	1.95	2.00
Citrated, 50 lb cans.....lb	1.55	1.60
Hydrobromide, 1 lb bot...lb.	4.80	5.00
Hydrochloride, 1 lb bot...lb	6.05	6.55
Sulfate, 1 lb bot.....lb.	5.40	5.90
Sodium Benzoate, tins....lb.	...	3.05
Salicylate, tins.....lb.	...	2.95
Calcium Bromide, 100 lb cs..lb.	...	.60
Carb, USP, 175 lb bbls....lb.	.05	.06
Gluconate, Gran. 125 lb..... bbls.....lb.	.47	.52
Powd.....lb.	.47	.52
Glycerophos, 250 lb bbls...lb.	...	1.05
Hypophos, USP, 25 lb cans lb.	.55	.60
Iodide, 5 lb bot.....lb.	...	3.75
Lactate, USP, 500 lb bbls lb.	.35	.40
Lactophosphate Soluble...lb.	...	1.20
Powdered tins.....lb	...	1.00
Insol, powd tins.....lb.	...	.50
Phosphate & Sulfate Tooth Paste grade, Works..lbs.	.03	.06
Sulfide, USP, 100 lb drs...lb.	.21½	.24
CAMPHOR, Jap. ref. slabs 100 lb. cases.....lb.	.50	.51
Refined powd.....lb.	.51	.52
¼ oz tab, 100 lb cases....lb.	.56	.57
Liniment, bbls.....gal.	2.10	2.20
Monobrom, 100 lb cases...lb.	1.60	1.65
Casein edible, 100 lb kegs..lb.	.45	.55
Charcoal Animal medicinal jars incl.....lb.	...	.50
Charcoal Wood, powd, 100 lb. bbls.....lb.	.06	.07
Chloral Hydrate, USP, 25 lb jars.....lb.	.75	.77
100 lb drums.....lb.	.70	.75
Cholesterin.....lb.	11.00	17.00
Chloroform, USP, 50 lb drs...lb.	.32	.35
Chlorophyll, 1 lb. bot.....lb.	3.75	4.00
Chromium Sulfate Scales, tins .....lb.	.45	.50
Powdered tins.....lb.	.50	.55
Chrysarobin, 50 lb tins.....lb.	2.50	2.55
Cinchonine Alk, 100 oz tins.oz. Crystal.....oz.	.42	.44
Sulfate, 100 oz tins.....oz.	.26	.28
Cinchonidine Sulfate, 100 oz tins .....oz.	.36	.38
Cinchophen, U.S.P. kegs...lb.	2.75	3.25
Cocaine Alk, USP, 1 oz vial..oz.	...	12.57
Hydrochloride, USP,.....oz.	...	9.82
CODEINE Alk, 1 oz vials, 10 lots.....oz.	...	11.87
Hydrobromide.....oz.	...	8.92
Hydrochloride.....oz.	...	10.67
Nitrate, oz vl 10 oz lots....oz.	...	9.80
Phosp. oz vl, 10 oz lots....oz.	...	9.17
Salicylate.....oz.	...	8.25
Sulfate, oz vl, 10 oz lots...oz.	...	9.67
Colchicine Alk, USP, 1 oz vl.oz.	...	22.00
Salicylate, 1 oz vls.....oz.	...	35.50
Cream Tartar, USP, 300 lb bbls .....lb.	.17¼	.17¾
Imp. powd. 224 lb bbls....lb.	.17½	.17¾
Creosote, USP, 42 lb cbys....lb.	.45	47
Carbonate, 150 lb.....lb.	1.40	1.75
Cresol, USP, 400 lb drums...lb.	...	.18
500 lb drums.....lb.	.12	.15
DIGITALIN Pure, 1 oz vial.oz	15.00	15.50
Dover's Powder, USP, 5 lb tin .....lb.	2.75	2.80
Duboisine Sulfate, 1 oz vl....oz.	35.00	40.00
Emetine Alk, 15 gr vial.....oz.	...	.85
Hydrochloride, USP, 1 oz vl .....oz.	12.00	12.25
15 grain vials.....oz.	2.50	2.70
Ephedrine, alk. 25 oz. tins,..oz.	1.50	1.90
Hydrochloride, 25 oz. tins, oz.	1.30	1.65
Sulfate, 25 oz. tins.....oz.	1.30	1.65
Epsom Salts, USP, 200 lb bbls .....100 lb.	2.25	2.50
Imp. 100 lb bbls.....100 lb.	2.30	2.35
Ergotin Bonjean, 1 lb jars...lb.	18.50	19.00
Eserine Alk, 1 oz vials.....oz	...	50.00
Salicylate, 1 oz vials.....oz.	...	40.00
Sulfate, USP, VIII 1 oz vials .....oz.	...	40.00
ETHER, USP, 55 lb drums..lb.	...	.11
Anaesthesia, 55 lb drums..lb.	.21	.23
Nitrous, 1 lb bot.....lb.	.75	.77
Ethyl Chloride, 200 lb bot...lb.	.22	.24
Ethyl Iodide, 5 lb bot.....lb.	6.00	6.05
Formaldehyde, USP, 100 lb cbys lc-l wks.....lb.	.07	.07¼
Gall Extract.....lb.	.20	.21
GLANDULAR SUBSTANCES 1 lb. lots		
Duodenal Substance.....	...	3.75
Liver Extract 1-20	...	5.75
Orchic Substance (Testicular)	...	3.75
Ovarian Substance, whole ..	...	12.50
Ovarian Residue	...	10.00
Pituitary Substance, whole..	...	45.00
Pituitary Substance, Anterior Lobe	...	40.00
Thyroid, U. S. P.....	...	3.75
Oxgall Powder.....	...	1.25
GLYCERIN, CP, 550 lb drums .....lb.	...	.10½
Gold Chloride, bottles.....oz.	12.00	12.50
Guaiacol, liq. USP. 100 lb cbys.....lb	1.60	1.70
Crystals.....lb	2.25	2.50
Benzoate, 1 lb bottles.....lb.	...	3.00
Carbonate, 5 lb boxes.....lb.	1.75	1.80
Halazone, 5 lb bot.....lb.	2.75	3.25
Hexamethylenetetramine, USP, 100 lb dr.....lb.	.46	.47
Homatropine Hydrobrom USP. .....oz.	...	14 50
5 oz and 1 oz vials.....oz.	...	13.50
Hydrastine Alk, USP, 1 oz vial .....oz.	20.50	21.00
Hydrochlide, USP, 1 oz vials .....oz.	20.50	21.00
Sulfate, 1 oz vial.....oz.	22.50	23.00
Hydrastinine Hydrochloride, USP, 15 gr vials.....oz.	...	40.00
Hydrogen Peroxide, USP, soln 375 lb bbls.....lb.	.03½	.04½
Hyoscine Hydrobrom, USP, 1 oz vials.....oz.	13.07	35.00 13.57
5 oz, 1 oz vials.....oz.		
Hyoscyamine Alk, crystals, 1 oz vials.....oz.	...	25.07
Amorphous, 1 oz vial...oz.	...	75.07
Hydrobromide, USP 1 oz vial .....oz.	...	25.00
Sulfate, 1 oz vial.....oz.	...	25.07
Hypoquinone, 100 lb kegs...lb.	...	1.10
ICHTHYOL, tins.....lb.	4.00	4.25
Iodide Arsenous, 5 lb bot...lb.	...	5.20

Chemicals

Arsenous-Mercuric soln, 5 lb bot	lb	26
Iodine, crude, 200 lb kegs	lb	25¢ per kilo
Resublimed, 25 lb jars	lb	3.35
Tincture bbls	gal	3.75
Iodoform, powd 10 lb bot	lb	5.30
Iron & Ammonium Citrate, USP, 50 lb cans	lb	.42 .44
Chloride, USP, lump 400 lb bbls	lb	.06 .08
Citrate, USP, VIII 25 lb can	lb	.94 .99
Hypophosphite, 5 lb cans	lb	1.40 1.50
Iodide, 1 lb bottles	lb	3.00
Phosphate, USP, 50 lb cans	lb	.69
& Potas Oxalate, 250 lb bbl	lb	.45
Pyrophosphate, USP, 50 lb	lb	.74 .80
& Sod Oxalate, 50 lb cans	lb	.30½
Sulfate, USP, crys bbls	lb	.04 .04¼
Ferrous dried bbls	lb	.08
Valerate, tins	lb	2.75 3.00
Jalap Resin, USP lumps, 5 lb tins	lb	4.00
Powdered, tins	lb	4.65
Lanolin, hyd 350 lb. bbls	lb	.13 .15
Anhydrous, 350 lb. bbls	lb	.14 .16
Lead Acetate, USP, 100 lb kegs	lb	.16½ .19½
Iodide, USP, VIII 5 lb bot	lb	2.55
Lecithin, 5 oz. jars	oz	1.00 1.30
Vegetable, cans	lb	1.00 2.50
Licorice Ext Mass, cases	lb	.19 .20
Compound powder, bbls	lb	.11 .13
LITHIUM CARBONATE, 250 lb bbls	lb	1.25 1.35
Citrate, USP, 100 lb kegs	lb	1.40
Iodide, 5 lb bottles	lb	4.60
Lobeline Sulfate, ¼ oz vial	oz	8.75
Magnesium Carbonate, USP, 100 lb bbls	lb	.08 .09
English, oz blocks	oz	.16 .18
Glycerophosphate, 5 lb tins	lb	3.20 3.25
Hypophosphite, 5 lb cans	lb	1.10 1.15
Oxide, 100 lb. cases	lb	.35 .45
Salicylate, 100 lb kegs	lb	1.10
Stearate, bbls	lb	.18 .20
Manganese Glycerophosphate, 5 lb tins	lb	2.90 3.00
Hypophosphite, USP, VIII 5 lb cans	lb	1.35 1.40
Iodide, 1 lb bottles	lb	5.35
MENTHOL, USP, 60 lb cases	lb	3.40 3.60
Synthetic, cases	lb	2.50 2.90
Mercury Metal, 75 lb flasks	fl	64.00 65.00
Bichloride, crys 25 lb box	lb	.92
Gran powd, 100 lb kegs	lb	.77
Bisulfate, 25 lb boxes	lb	1.48
Blue Mass, 25 lb boxes	lb	.84
Powd, 25 lb boxes	lb	.85
Blue Ointment, USP, 50%, 25 lb cans	lb	.99
Mild 30%, 25 lb cans	lb	.69
33 1/3% mercury	lb	.72
Calomel, 50 lb boxes	lb	1.23
English	lb	2.65 2.75
Iodide, green, 25 lb jars	lb	3.95
Red, USP, 25 lb jars	lb	4.00
Yellow, USP, VIII, 25 lb jars	lb	4.10
Red precip Powd USP, 25 lb boxes	lb	1.34
White precip, Powd., USP, 25 lb. boxes	lb	1.41
Salicylate, 25 lb bot	lb	2.32
With chalk, USP, 25 lb boxes	lb	.69
Methanol, Pure 1c-1 drs	gal	.44
Methyl Salicylate, USP, 50 lb cans	lb	.40 .42
Methylene Blue, USP, med 5 lb cans	lb	2.00 2.05
Milk powd, 150 lb bbls	lb	.09 .12
MORPHINE Alk. 5 oz tin	oz	11.10 11.17
Acetate, 5 oz tins	oz	9.00 9.07
Hydrobromide, 5 oz tins, 10 oz lots	oz	8.80 9.02
Hydrochloride, 5 oz tins, 10 oz lots	oz	8.85 9.10
Ethyl Hydrochloride, 5 oz tins 10 oz lots	oz	10.60 10.82
Sulfate, 5 oz tins, 10 oz lots	oz	8.85 9.10
Naphthalene Flake, 175 lb bbls wks	lb	.04½ .05
Balls, 250 lb bbls wks	lb	.05½ .06
Neo-cinchophen 5 lb. lots	lb	15.00 18.00
1 lb. lots	lb	2.00 2.50
Oxgall, Purified, 5 lb bot	lb	1.80 1.90
USP Extract, 5 lb. bot	lb	5.00 5.75
Oxyquinoline Sulfate, tins	lb	1.90
Pancreatin, USP, 100 lb	lb	
Paraffin, refd, 200 lb cs slabs 118-120 deg MP	lb	.08 .09
128-132 deg MP	lb	.07½ .07¾
Para-Aldehyde, USP, 100 lb carboys	lb	.48 .50
Pepsin, USP, 100 lbs. 1:3000	lb	2.25
100 lbs. 1:6000	lb	4.00
100 lbs. 1:10000	lb	6.50
Peptone, powd., or granula 5 lb. 100 lb. lots	lb	.70 1.00
PHENOBARBITAL, U. S. P., 100 lb. lots	lb	6.50
Phenolphthalein, U. S. P. 100 lb drums	lb	.52
5 lb cans 100 lb lots	lb	.60
Yellow		.47
Pilocarpine Hydrochloride, USP, 1 oz vials 25 oz lots	oz	2.00 2.25
Nitrate, 25 oz lots	oz	1.90 2.15
Single ounce	oz	2.15 2.40
Alkaloid, 15 gr vials	vl	.75
Piperadine, 25 oz bottles	lb	8.00
Popodhyllin 5 lb bottles	lb	4.00 4.15
Potassium Acetate, USP, 100 lb kegs	lb	.29 .30
Bicarb, USP, crys 320 lb bbls	lb	.09½ .10
Bromide, USP, crys 100 lb cs	lb	.31 .32
Citrate, USP, 100 lb. box	lb	.42½ .43
Guaiacol Sulfonate	lb	1.95 2.25
Potassium Hypophosphite, 10 lb. cans	lb	.65 .70
Iodide, USP, 25 lb cases	lb	2.70
Lactophosphate, 4 oz bot	lb	.90
Permangan, USP, crys, 100 lb drs wks	lb	.16 .16½
Phosphate dibasic pure, kegs	lb	.49
Salicylate, 25 lb cans	lb	1.18
Sulfate, USP, VIII, 100 lb kegs	lb	.13 .15
Sulfocyanide, CP 15 lb jars	lb	.50
Tartrate, CP, tins	lb	.65
Pyrogallol, USP, see Acid Pyrogallic		
Quinidine Alk, crystals, 100 oz, tins	oz	.72 .78
Sulfate, 100 oz tins	oz	.50
QUININE SULFATE, USP, 100 oz tins	oz	.43½
1 oz tins, 100 oz lots	oz	.53½
Acetate	oz	.92
Arsenate	oz	.92
Benzoate	oz	.92
Bisulfate, USP	oz	.43½
Citrate	oz	.65
Dihydrobromide	oz	.68
Dihydrochloride, USP	oz	.66
Ethyl Carbonate	oz	.52
Ferrocyanide	oz	.92
Formate	oz	.87
Glycerophosphate	oz	1.10
Hydrobromide, USP	oz	.60
Hydrochlorosulfate	oz	.66
Hypophosphite	oz	.84
Lactate	oz	.65
Phenolsulfonate	oz	.62
Phosphate	oz	.76
Salicylate, USP	oz	.66
Tannate, USP	oz	.78
Tartrate	oz	.92
Valerate	oz	.72
Urea Hydrochloride, USP	oz	.66
Rennet, N. F. 5 lb 1:25,000	lb	2.95 3.50
Resorcinol, USP, 25 lb cans	lb	1.57 1.65
Rochelle Salt, USP, 225 lb bbl	lb	.11½ .12
Rock Sugar, 5 lb boxes	lb	.15
Saccharin, USP, 10 lb cans	lb	1.70 1.80
USP, Soluble, 10 lb cans	lb	1.75 1.85
Salicin, USP		7.00 7.25
SALOL, USP, 100 lb drums	lb	.90
Saltpetre, powd, bbls wks	lb	06½ .08¼
Santonin, USP, bulk	lb	60.00 65.00
Saponin, refined	lb	1.30 1.50
Seidlitz Mixture, 250 lb bb	lb	.10 .10½
Silver Metal, American	oz	.29¾
Iodide, 16 oz lots	oz	.69
Nitrate, 100 oz bottles	oz	.25½ .26½
Nucleinate, bulk	oz	.37
Proteinate	oz	.39 .41
SODIUM BENZOATE, USP, 100 lb bbls	lb	.42 .47
Bromide, USP, 100 lb kegs	lb	.31 .32
Cacodylate, USP, 25 lb bot	lb	5.00 5.25
Citrate, USP, X100 lb. box	lb	.31½
USP VIII, 100 lb. box	lb	.25
Glycerophosphate, N.F., crys 25 lb cans	lb	1.27 1.33
Powder, 25 lb tins	lb	1.32 1.38
Soln, USP, 25 lb tins	lb	1.05 1.15
Hypophosphite, USP, 25 lb cans	lb	.60 .65
Iodide, USP, 25 lb jars	lb	3.50
Phosphate (Mono-Sodium), 100 lb kegs	lb	.28 .29
Di-Sodium USP, granular, 275 lb bbls	lb	.07½ .08
Pyrophosphate, 100 lb kegs	lb	.29
Salicylate, 100 lb kegs	lb	.47
Sulfocarbolate, USP, 100 lb kegs	lb	.25
Sulfocyanate, CP crys, jars included	lb	.60
Spartein Sulfate, USP, 25 oz bulk	oz	.65 .70
Single oz vial	oz	.77 .90
STRONTIUM BROMIDE USP, 50 lb kegs	lb	.46 .47
Carb, 100 lb kegs wks	lb	.20
Iodide, USP, 25 lb jars	lb	3.00
Lactate, kegs	lb	.90 1.10
Nitrate, 600 lb bbls NY	lb	.08 .08½
Imp. bbls NY	lb	.08 .08½
Salicylate, USP, 100 lb keg	lb	1.10
Strophanthin, USP, 1 oz vial	oz	19.00 19.00
Crystals	lb	75.00 75.00
Strychnine Alk, USP crys, 100 oz tins	oz	.37
Powdered	oz	.27
Acetate	oz	.65
Arsenate, 25 oz cans	oz	.65
Glycerophosphite, USP	oz	.65
Hydrobromide	oz	.65
Hydrochloride	oz	.65
Hypophosphite	oz	.75
Nitrate, USP	oz	.60
Phosphate	oz	.65
Sulfate, USP, powd	oz	.24
Sugar, refined, 275 lb bbl 100 lb	lb	5.80 5.90
Milk, USP, 200 lb bbls	lb	.18 .20
Sulfonethylmethane, USP, 10 lb boxes	lb	3.85 4.05
Sulonmethane, USP, 10 lb box	lb	2.65 3.85
Sulfur flwrs, washed, USP, 125 lb bbl	lb	.06
Iodide, USP, VIII, 5 lb bot	lb	3.85
TARTAR EMETIC, USP, 300 lb bbls	lb	.26 .28
Terebene, tins	lb	.85
Terpin Hydrate, USP, 100 lb kegs	lb	.35 .37
Theobromine Alk, 5 lb cans	lb	1.80 1.85
Sod. Salicylate, 1 lb bot	lb	1.95 2.00
Sod. Benzoate, 1 oz vials	oz	1.00
Thymol, USP, 25 lb tins	lb	1.45 1.60
Iodide kegs	lb	4.30
Titanium Oxide, tons, bags, lb.	lb	.18
100 lb. kegs	lb	.19½
Veratrine Alkaloid	oz	2.25
Sulfate, 1 oz vials	oz	2.25
Witch Hazel Ext., 50 gal bbl	gal	.60 .80
Zinc Carb, USP, 100 lb keg	lb	.28 .31
Chloride, USP, 25 jars ex	lb	.24 .29
Iodide, 5 lb bottles	lb	4.25
Oxide, USP, 100 lb bbls	lb	.13 .14
Stearate, USP, 50 lb bbl	lb	.16 .17
Sulfate, USP, 100 lb bbl	lb	.08 .09
Sulfocarbolate, 100 lb kegs	lb	.23 .26

Miscellaneous

Absorption Bases	lb	.60 .75
Castor Oil, odorless, bbls	lb	.12
Chalk drop, 175 lb. bbls	lb	.03½
Precip. light, 250 lb. cask	lb	.04¼
Heavy 540 lb casks	lb	.04½
English light, bags	lb	.04¾
English light, casks	lb	.05½
Cocoa Butter, fingers	lb	.22 .24
12 lb. box		
Cod Liver Oil Nor. 30 gal. bbls	bbl	26.00 28.00
Newfoundland	bbl	21.00 22.00
Collodion U. S. P. 30 lb. dr	lb	.13 .14
Colors certified; 1 lb. cans, 5 lb. cans		
Amaranth No. 107	lb	2.55 2.65
Brilliant Blue F.C.F.	lb	13.00 13.50
Erythrosine No. 517	lb	17.00 17.50
Orange Ind. 85	lb	2.55 2.65
Ponceau 3R No. 56	lb	5.25 5.50
Tartrazine No. 94	lb	2.55 2.65
Corn Syrup 42° 50 gal. bbl.	100 lb	2.28
Gelatin, USP, Silver 100 lb. cases	lb	.49 .55
Pure Food, 50 lb. bbl	lb	.47 .49
Glucose, (grape sugar) dry 70° bags c-1 NY	100 lb	3.14 3.24
Haarlem Oil, bot 6 gross cases	gross	3.25
Imported, 5 gr. cs	gross	3.35
Kaolin, Bags	lb	.05 .08
Colloidal Grade 200 lb. tin lined wooden drums	lb	.10½ .12
Mineral Oil White, 50 gal. bbls. 80-85 vis	gal	.45 .50
85-90 vis	gal	.65 .70
125-130 vis	gal	.75 .85
290 vis	gal	.80 .90
Russian 80-85 vis	gal	.55 .60
110-115 vis	gal	.70 .75
145-155 vis	gal	.73 .78
180-185 vis	gal	.78 .83
335-345 vis	gal	.83 .88
Olive Oil, Edible bbls	lb	1.45 1.65
Paraffin Wax, fully refined, slabs 125 @ 127 A.M.P. bags	lb	.053
130 @ 132 A.M.P. bags	lb	.0595
135 @ 137 A.M.P bags	lb	.0655
Petrolatum, Lily White, USP. 400 lb. bbl	lb	.07 .08
Snow White USP, 400 lb. bbls	lb	.08 .09
Rice Starch, 140 lb bags	lb	.09 .10
Soap Castile, bars 40 lb. Case	Cs	12.75
Powd. USP 250 lb. bbls	lb	.21 .23
Green, USP, 450 lb. bbls	lb	.07½ .07¾
Neutral, powd. 200 lb. bbls	lb	.18½ .20½
Talc, Italian, 220 lb bags	ton	55.00 75.00
French, 220 lb bags	ton	45.00 50.00
Turtle Oil, gal		3.50 5.00

Waxes, See Drugs & Spices

Aromatics and Essential Oils

Acetophenene, CP, 1 lb bot	lb.	3.50	3.65
Aldehyde, C 8 (Otcyl) 1 lb bot	lb.	30.00	35.00
C 7, 1 lb bot	lb.	4.50	5.50
C 9 (Nonyl), 1 lb bot	lb.	40.00	45.00
C 10 (Decyl), 1 lb bot	lb.	30.00	35.00
C 14, 1 lb bot	lb.	8.50	14.00
C 16, 1 lb bot	lb.	9.25	18.00
AMYL ACETATE, pure, 25 lb cans	lb.	.43	.50
Butyrate, 1 lb bot	lb.	.95	1.50
Butyrate, 5 lb bot	lb.	...	1.00
Cinnamate, 5 lb bot	lb.	9.50	9.75
Formate, 1 lb bot	lb.	...	1.75
Formate, 5 lb bot	lb.	...	1.60
Phenyl Acetate, 1 lb bot	lb.	4.50	5.00
Salicylate, 100 lb cbys	lb.	.65	1.25
Anethol, 2 lb bot	lb.	1.00	1.10
Anisic Aldehyde, 1 lb bot	lb.	3.10	3.60
Benzaldehyde, USP, 40 lb cbys	lb.	1.30	1.40
FFC, 40 lb cbys	lb.	1.35	1.45
Benzoic Ether, see Ethyl Benzoate			
Benzophenone, 1 lb bot	lb.	1.75	2.25
Benzyl Acetate, 100 lb cbys	lb.	.60	.80
Alcohol, 5 lb bot	lb.	.85	.95
BENZYL BENZOATE		1.10	1.15
Medicinal, FFC	lb.	...	1.40
Buytrate, CP, 1 lb bot	lb.	9.25	9.50
Benzyl Cinnamate, 1 lb bot	lb.	7.00	7.25
Fomate, 1 lb bot	lb.	3.15	3.25
Propionate, 1 lb bot	lb.	2.25	2.40
Succinate, 1 lb bot	lb.	5.25	5.50
Valerate, 5 lb bot	lb.	3.00	3.25
Borneol, 1 lb bot	lb.	1.35	1.85
Bornyl Acetate, 1 lb bot	lb.	1.50	2.60
Bromstyrol, 25 lb cases	lb.	3.75	3.85
Butyl Anthranilate dom, 1 lb bot	lb.	3.10	3.50
Carvol, 5 lb bot	lb.	3.25	3.50
Cinnamic Acid, 5 lb cans	lb.	2.50	2.60
Alcohol liquid, 1 lb bot	lb.	3.50	4.00
Crystallizable	lb.	2.25	2.50
Aldehyde	lb.	7.75	9.00
Imported, 1 lb bot	lb.	2.00	3.20
Citral, 25 lb cans	lb.	2.10	2.35
Citronellol 1 lb bot	lb.	3.50	3.75
Citronelyl Acetate, 1 lb bot	lb.	3.25	3.50
Coumarin, 25 lb cans	lb.		
DECYL ALCOHOL	lb.	22.00	25.00
Diphenyloxide, 25 lb tins	lb.	1.05	1.25
Diphenyl Methane	lb.	1.75	2.00
Duodecyl Alcohol	lb.	24.00	26.00
Ethyl Acetate, pure, 5 lb bot	lb.	.05½	.06½
Benzoate, 5 lb bot	lb.	1.25	1.50
Ethyl Butyrate, 5 lb bot	lb.	1.80	2.00
Caproate, 1 lb bot	lb.	3.25	3.50
Cinnamate, 1 lb bot	lb.	4.00	4.50
Formate, 5 lb bot	lb.	1.00	1.25
Methyl Paracresol, 1 lb bot	lb.	3.25	3.50
Phenyl Acetate, 5 lb bot	lb.	3.75	4.00
Valerate, 5 lb bot	lb.	...	3.75
Salicylate, 5 lb bot	lb.	1.95	2.00
Eucalyptol, USP, 50 lb cans	lb.	.57	.60
Eugenol, USP 25 lb cans	lb.	2.00	2.50
Geraniol, 50 lb cases	lb.	1.75	2.35
Geranyl Acetate, 1 lb bot	lb.	2.75	2.80
Butyrate, 1 lb bot	lb.	13.00	13.50
Formate, 1 lb bot	lb.	12.00	12.50
Heliotropin, 100-10 lbs	lb.	1.75	2.00
Imported	lb.	2.10	2.30
Hydroxycitronellal, 1 lb	lb.	2.75	3.85
Indol, CP, 1 oz bot	oz.	2.90	3.00
IONONE, 1 lb bot 100%	lb.	4.00	4.50
Alpha	lb.	5.75	6.00
Beta	lb.	4.50	5.00
Methyl	lb.	5.00	5.25
Iso Borneol	lb.	2.25	2.35
Iso Bornyl Acetate	lb.	3.00	3.20
Iso-Butyl Benzoate, 5 lb bot	lb.	2.75	3.00
Iso-Eugenol, 1 lb bot	lb.	3.00	3.05
Iso-Safrol, 1 lb bot imp	lb.	1.75	1.85
Domestic, 5 lb bot	lb.	3.50	3.75
Linalol from Bois de Rose, 5 lb bot	lb.	1.65	3.50
Linalyl Acetate, 1 lb bot	lb.	2.25	2.35
Benzoate, 1 lb bot	lb.	13.00	14.00
Formate, 5 lb bot	lb.	10.50	12.00
METHYL ACETOPHENONE	lb.	2.00	2.15
Anthranilate, 1 lb bot	lb.	2.15	2.25
Imported	lb.	2.70	2.75
Benzoate, 5 lb bot imp	lb.	1.25	1.35
Domestic, 5 lb bot	lb.	1.25	1.35
Cinnamate, 1 lb bot	lb.	3.35	4.00
Heptenone, 1 lb bot	lb	3.50	4.00
Paracresol, 1 lb bot	lb.	4.50	8.00
Phenylacetate, 5 lb bot	lb	2.50	2.75
Salicylate, USP, 500 lb dr	lb.	...	.40
50 lb cases	lb.	...	.42
Mirbane rect. 1,000 lb drs	lb.	.12	.13
Musk Ambrette 1 lb cans	lb	6.00	6.25
Musk Ketone 1 lb cans	lb.	7.55	7.80
Xylene 5 lb cans	lb.	2.25	2.85
Nerolin 1 lb cans	lb.	1.35	1.40
Octyl Alcohol 1 lb bot	lb.	18.00	20.00
Oenanthic Ether lb bot	lb.	1.90	2.00
Oleoresin Aspidum			
USP, bot and tins	lb.	...	1.25
Capsicum, USP, bot and tins	lb.	2.10	2.25
Cubeb, USP, bot and tins	lb.	2.30	2.60
Ginger bot and tins	lb.	2.25	2.80
Malefern see Aspidum			
Orris, bot & tins	lb.	12.00	15.00
Pepper, black, USP, bot & tin	lb.	...	9.50
Vanilla, bot & tins	lb.	3.80	4.00
Paracresol Methyl Ether	lb.	4.25	4.50
Paracresyl Acetate	lb.	5.50	5.75
Para Cymene Refd 110 gal dr	gal.	2.25	2.50
PHENYLACETALDEHYDE 50% 1 lb bot	lb.	4.50	4.75
Imported 50%	lb.	4.50	4.75
100%	lb.	8.00	8.25
Phenylacetic Acid 1 lb bot	lb.	2.65	2.90
Phenyl Diacetate 1 oz bot	oz.	3.00	3.25
1 lb bot	lb.	8.00	10.00
Imported	lb.	7.00	7.75
Phenylethyl Alcohol 1 lb bot	lb.	3.75	4.00
Phenyl Ethyl Acetate	lb.	8.25	8.75
Butyrate 1 lb bot	lb.	15.00	16.00
Formate, 1 lb bot	lb.	19.00	21.00
Propionate, 1 lb bot	lb.	10.00	12.00
Valerate, 1 lb bot	lb.	14.00	15.00
Phenylpropylalcohol, 1 lb bot	lb.	8.50	9.00
Rhodinol, 1 lb bot	lb	7.00	15.00
Skatol, 1 oz bot	lb.	4.50	7.00
Terpinyl Acetate, 25 lb cans	lb.	.85	.90
Imported, 25 lb cans		.85	.90
TERPINEOL, CP, 1000 lb drs	lb.	.33	.34
50 lb cans	lb.	.36	.37
Absolute, 25 lb cans	lb.	.48	.50
TOLYL ALDEHYDE, F.F.C. 40 lb. carboys	lb	2.10	2.25
Valerianic Ether see Ethyl Valerate			
Vanillin (Clove Oil), USP (Guaiacol) USP	lb.	4.50	4.75
	lb.	4.25	4.50

Essential Oils

Almond Bitter, USP, 5 lb bot	lb.	2.00	2.10
Bitter, ffPA, 5 lb bot	lb.	2.10	2.20
Sweet, 56 lb cans	lb.	.65	.68
Almond Meal, 25 lb cans	lb.	.18	.19
Amber crude, 25 lb tins	lb.	.18	.20
Rectified, 25 lb tins	lb.	.55	.60
Amber liquid, 400 lb drs	lb.	2.20	2.30
Ambergris, Black, boxes	oz.	14.00	15.00
Gray boxes	oz.	25.00	30.00
Angelica Root, 1 lb bot	lb.	29.00	32.00
Anise Tech, 400 lb drums	lb.	.40	.43
USP, 60 lb cans	lb.	.44	.47
Apricot Kernel, 50 lb cans	lb.	.22	.23
Bay, 25 lb tins N. F. V., 50.55% Phenol	lb.	1.65	1.80
Terpeneless	lb.	4.25	4.45
BERGAMOT, 25 lb coppers	lb.	1.65	1.90
Terpeneless	lb.	6.25	8.00
Artificial, 25 lb cans	lb.	1.00	1.40
Birch, Sweet, Northern, 25 lb tins	lb.	3.00	3.10
Southern, 25 lb tins	lb.	...	1.85
Birch Tar, rect., 5 lb bot	lb.	.50	.55
Crude, 50 lb tins	lb.	.13	.14
Bois de Rose, tins			
Brazilian	lb.	1.00	1.10
Cayenne, tins	lb.	2.50	2.75
Cade, 25 lb cans	lb.	.32	.38
Cajuput, native, 50 lb tins	lb.	.45	.57
Calamus, 5 lb bot	lb.	2.75	3.00
Camphor Sassa, 1000 lb drs	lb.	.12	.14
White, 400 lb drs	lb.	.16	.18
Cans, 50 lbs	lb.	.18	.20
CANANGA, Native 25 lb tins	lb.	2.00	2.10
Rectified, 25 lb tins	lb.	2.50	2.60
Caraway, USP	lb.	1.85	1.90
Cardamon, NF, 1 lb bot	lb.	14.00	15.00
Cascarilla, 1 lb bot	lb.	56.00	70.00
Cassia,			
Redist, USP, 50 lb cans	lb.	1.10	1.15
Cedar Leaf, 50 lb tins	lb.	.70	.75
Cedar Wood, light, 1000 lb drs	lb.	.29	.33
Celery, 1 lb bot	lb.	10.50	12.50
Chaulmoogra, USP 80 lb cases	lb.	...	1.50
Cinnamom Ceylon, 1 lb bot	lb.	8.00	10.00
Leaf, 5 lb bot	lb.	1.85	1.95
CITRONELLA Ceylon, 1000 lb drs	lb.	.38	.39
50 lb tins	lb.	.40	.41
Java, 400 lb drs	lb.	.52	.54
50 lb tins	lb.	.54	.56
Civet, Abyssin, horns	oz.	2.10	3.00
Cloves, USP, 50 lb cans	lb.	.89	.94
6 lb bot	lb.	.99	1.10
Copaiba	lb.	.55	.60
Coriander, USP, 10 lb bots	lb.	4.10	4.35
Croton USP, 25 lb tins	lb.	2.25	2.50
Cubebs, USP, 5 lb bot	lb.	2.55	2.85
Cumin, 1 lb bot	lb.	7.00	7.50
Dill, 25 lb cans	lb.	3.25	5.25
Erigeron, 20 lb tins	lb.	1.00	1.10
EUCALYPTUS Austl, USP, 56 ib cans, cases	lb.	.27	.29
500 lb drs	lb.	.25	.27
Fennel, USP, 25 lb tins	lb.	1.15	1.40
Geranium African, 25 lb tins	lb.	4.75	5.50
Bourbon, 28 lb tins	lb.	4.75	5.25
Turkish, 28 lb tins	lb.	1.95	2.15
Ginger, 1 lb bot	lb.	3.40	3.75
Gingergrass, 28 lb tins	lb.	2.50	2.70
Grape Fruit	lb.	2.75	2.85
Hemlock, 25 lb tins	lb.	.75	.90
Juniper Berries, USP, 25 lb tins	lb.	1.20	2.00
Wood, 50 lb tins	lb.	.50	.60
Labdanum, 5 lb bot	lb.	5.50	6.00
LAVENDER. USP, 28 lb tins	lb	1.65	2.85
Spike Spanish, 50 lb cans	lb.	.57	.65
Lemon Ital, 25 lb cans	lb.	1.00	1.25
California 35 lb cbys	lb.	...	.75
Lemongrass, native, 50 lb cans	lb.	1.05	1.40
Limes, expressed, 25 lb tins	lb.	10.00	12.50
Distilled, 25 lb tins	lb.	7.25	7.75
Linaloe Mex., 70 lb cases	lb.	...	1.40
Mace, distilled, 50 lb tins	lb	1.10	1.15
Mandarin, 25 lb cases	lb.	3.75	4.00
Musk Tonquin, tins, Pods	oz.	16.00	20.00
Tonquin, tins, Grained	oz.	18.00	22.00
MUSTARD, USP, 1 lb bots	lb.	8.50	9.00
Artif, USP, 5 lb bot	lb.	1.65	1.75
Neroli Bigarade, ½ & ¼ & 1 lb bot	lb.	75.00	105.00
Petale, 1 lb bot	lb.	95.00	105.00
Artificial, 1 lb bot	lb.	5.00	15.00
Nutmeg, USP, 50 lb tins	lb	1.10	1.15
ORANGE BITTER, 25 lb tins	lb	1.10	1.50
Sweet African 25 lb. tins	lb.	1.10	1.15
Sweet W Ind, 25 lb tins	lb	1.25	1.50
Italian, 25 lb cop	lb	1.30	1.70
Orange American, Cold pressed 25 lb tins	lb.	...	1.00
Distilled, 25 lb tins	lb.	...	.55
Spanish, 25 lb tins	lb.	...	1.60
Oil Orris, concrete	oz.	4.00	4.25
Origanum, 50 lb cans tech	lb.	.25	.27
Parsley, 1 lb bot	lb.	6.50	6.75
Patchouli, 5 lb bot	lb.	3.50	4.25
Pennyroyal, dom, 25 lb tins	lb.	1.75	1.85
Imported, 25 lb tins	lb.	1.30	1.40
Pepper Black lb		...	6.00
Peppermint, nat. 60 lb cases	lb.	2.85	3.05
Redis, USP, 60 lb cs	lb.	3.35	3.70
Petit Grain S A., 25 lb tins	lb.	1.00	1.05
French, 1 lb bot	lb.	4.50	4.75
Italian, 25 lb tins	lb.	2.20	2.30
Pimento Leaf, 25 lb tins	lb.	1.15	1.30
Berries, 25 lb tins	lb	3.00	3.10
Pine Needle Siberian, cans	lb.	.75	.95
Pinus, Sylvestris, 25 lb tins	lb.	1.40	2.00
Pumilio, USP, 25 lb tins	lb.	1.85	1.90
Rose Fr, 8, 16, & 32 oz pkgs	lb.	14.00	17.00
Bulg, 8, 10 & 32 oz pkgs	oz.	6.00	17.00
Rosemary, USP, 27½ lb tins	lb.	.34	.40
1000 lb drums	lb.	.32	.38
Tech, 25½ lb tins	lb.	.26	.28
Rue, 1 lb bot	lb.	2.25	2.50
SANDALWOOD, E Ind, USP, 100 lb case	lb.	5.50	6.50
W Indian (Amyris), 25 lb. tins	lb.	2.85	2.95
Australian, Tins		5.25	5.65
Sassafras, USP, 50 lb cans	lb.	.85	1.00
Artificial, 1000 lb drs, 60 lb cans	lb.	.20½	.23
Safrol, cans	lb.	.24	.26
Sage, Dalmatian, 25 lb. cans	lb.	2.00	2.10
Savin, 50 lb tins	lb.	1.85	2.00
Snakeroot, Canada	lb.	8.25	8.50
SPEARMINT, USP, 50 lb tins	lb	1.40	1.60
Spruce, 50 lb tins	lb	.70	.75
Tansy, American, 25 lb tins	lb.	2.00	2.05
Tar, 50 gal bbls	lb.	.25	.30
USP, 50 gal bbls	lb.	.75	1.50
Thyme, red, NF, 25 lb tins	lb.	.65	.80
White, NF, 25 lb tins	lb.	.65	.90
Tech, 110 lb drums	lb.	.50	.55
Turpentine, USP, rect cbys	lb.	.27	.30
Vetivert Bourbon, 10 bot	lb.	4.75	5.00
Indian, 1 lb bot	lb.	22.00	28.00
Java, 1 lb bot	lb.	12.00	13.00
Wine, heavy, 1 lb bot	lb.	1.50	1.60
WINTERGREEN Gaultheria, true, 25 lb tin	lb.	8.00	10.00
Southern, 25 lb tins	lb.	3.75	4.00
Synthetic see Methyl salicylate			
Wormseed, Balt, 25 lb tins	lb.	2.10	2.35
Wormwood, dom, 25 lb tins	lb.	3.00	3.25
Ylang Ylang Bourbon, 10 lb tins No. 1	lb.	4.75	5.50
10 lb tins No. 2	lb.	3.50	3.75
Manila, 1 lb bot	lb.	22.00	30.00

Drugs and Spices

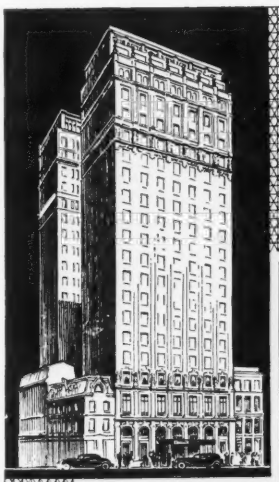
Aconite Root, USP, bags....lb.	.12	.13
Agar Agar, No. 1, bales....lb.	.55	.58
Agar Agar No. 2, bales.....lb.	.45	.49
Aletris Root, bags.....lb.	.17	.19
Alkanet Root, bags.....lb	.11	.13
ALOES, Cape, 400 lb cases. lb.	.10	.11
Curacao, 140 lb cases.....lb.	.10	.11
Socotrine, Whole, 300 lb cs lb.	.30	.32
Althea Root, bags.....lb.	.14	.16
Cut cases.....lb.	.19	.20
Angelica Root, bags.....lb.	.14	.15
Angostura Bark, bags.....lb.	.19	.20
Anise seed Star, bags.....lb	.11	.11½
Spanish, bags.....lb	.10½	.11
ARABIC GUM, White, No. 1, 220 lb bags.....lb.	.16	.17
Seconds, 220 lb bags.....lb.	.14	.15
Sorts, Amber, 220 lb bags..lb.	.08	.08½
Powd, USP, 300 lb bbls....lb.	.11	.15
Areca Nuts, 100 lb bbls.....lb.	.05	.07
Powd, 100 lb bbls.....lb.	.10	.11
Arnica Flowers, bales.....lb.	.13	.14
Root, bags.....lb.	.40	.41
Arrowroot, St. Vincent, powd bbls.....lb.	.09	.09½
Asafoetida, 250 lb cases.....lb.	.18	.20
Powd, 50 lb boxes.....lb.	.32	.35
Balm Gilead Buds, bags....lb.	.20	.21
Balmony Herbs, bales.....lb.	.10	.12
BALSAM COPAIBA Para, 80 lb cases.....lb.	.30	.31
South American, USP, 80 lb cases.....lb.	.32	.33
Peru, 120 lb cases.....lb.	.90	.95
Tolu, 90 lb cases.....lb.	.78	.88
Barberry Bark, of root, bags lb.	.15	.17
Bayberry Bark, bales.....lb.	.07	.08
Wax bbls.....lb.	.15	.17
Bees Wax, White, cases.....lb.	.32	.36
Yellow refined cases.....lb.	.25	.28
Yellow Crude Bags.....lb.	.20	.24
BELLADONNA LEAVES, bale .....lb.	.12	.15
Root, bags.....lb.	.11	.13
Benzoin Gum, Siam, boxes...lb.	1.05	1.30
Sumatra, cases.....lb.	.22	.24
Berberis Aquafolium Root, bags .....lb.	.09	.10
Beth Root, bags.....lb.	.08	.09
Black Indian Hemp Root, 100 lb bags.....lb.	.11	.12
Blood Root, bags.....lb.	.10	.11
Blueflag Root, bags.....lb.	.12	.13
Boldo Leaves, bales.....lb.	.11	.13
Boneset Herb, bales.....lb.	.08	.09
Borage Flowers, bales.....lb.	.19	.20
Broomtop Herb Cut, bales..lb.	.08	.09
Bryonia Root, bags.....lb.	.10	.11
BUCHU LEAVES Short, 250 lb. bales.....lb.	.20	.22
Long bales.....lb.	.75	.80
Buckbean Leaves, bales.....lb.	.09	.10
Buckthorn Bark, bags.....lb.	.06	.07
Berries, bags.....lb.	.29	.34
Burdock Root, bags.....lb.	.09	.10
Seed bags.....lb.	.30	...
Burgundy Pitch, 110 stand gross for net.....lb.	.08	.09
Imported.....lb.	.10	.11
Calabar Beans, bags.....lb.	.15	.16
Calamus Root, blchd cases..lb.	.23	.25
Unbleached, bags.....lb.	.07	.08
Calendula Petals, imp bales..lb.	.45	.47
Calisaya Bark, bales.....lb.	.17	.18
Powdered, bbls.....lb.	.22	.23
Canary Seed, South America, bags.....lb.	.03½	.04
Morocco.....lb.	.03½	.04¼
Turkish.....lb.	.03½	.04
Candelilla Wax, bags.....lb.	.09½	.11
Cannella Alba Bark, bales...lb.	.25	.26
Cannabis, U.S.P.....lb.	.16	.23
Cantharides, Chinese, cases..lb.	1.00	1.05
Powdered, boxes.....lb.	1.15	1.25
Russian, cases.....lb.	1.80	2.00
Powdered, boxes.....lb.	2.25	2.45
Caraway Seed, Dutch, bags..lb.	.09½	.10
Cardamon bleached, cases...lb.	.80	1.10
Decorticated, cases.....lb.	.59	.63
Carnauba Wax No. 1, 100 lb. bags.....lb.	.29	.30
Cascara Amarga, 150 lb bbls.lb.	1.25	1.30
So called bales.....lb.	.25	.30
CASCARA SAGRADA, 1931 bark.....lb.	.11	.12
1932 bark.....lb.	.10	.11
New crop.....lb.	.09	.10
Cascarilla Bark, quills, bales.lb.	.70	.75
Siftings, bbls.....lb.	.50	...
Cassia Batavia No. 1 bales...lb.	.10½	.10¾
Shortstick, bales.....lb.	.09½	.10
Batavia No. 3, bales.....lb.	.08	.08½
China Select Rolls, cases..lb.	.05¼	.06¼
Broken, bales.....lb.	.04½	.05
Saigon, thin.....lb.	.18	.18½
Buds, cases.....lb.	.12	.12½
Fistula, baskets.....lb.	.07½	.09
Catnip, Herb, bales.....lb.	.14	.15
Celery Seed, bales.....lb.	.55	.60
Ceresin Wax, White, bags...lb.	.11	.15
Yellow 200 lb. bags.....lb.	.10	.12
Imp. white 100 lb. bags.lb.	.22	.38

CHAMOMILE FLOWERS Roman, bales.....lb.	.36	.38
Hungarian, cases.....lb.	.16	.17
Charcoal Willow, powd, bbls.lb.	.06	.06½
Wood, powd, bbls.....lb.	.04	.05
Chestnut Bark.....lb.	.07	.08
Leaves bales.....lb.	.05	.06
Chicle Gum, 200 lb. bales...lb.	.27	.30
Chiretta, bales.....lb.	.13	.14
Cinnamon, Ceylon, No. 1, bales .....lb.	.12	.14
No. 2 bales.....lb.	.09½	.10
Clover Tops, Red, bags ....lb.	.15	.17
Cloves Zanzibar, bales.....lb.	.13½	.14
Cochineal, Black.....lb.	.51	...
Silver.....lb.	.45	...
Cohosh Root, Black, bags....lb.	.05	.06
Blue, bags.....lb.	.06	.07
Colchicum Root, bags.....lb.	.11	.13
Seed, bags.....lb.	.60	.65
COLOMBO ROOT, bags...lb.	.05	.07
Colocynth Pulp, bales.....lb.	.13	.14
Coltsfoot Leaves, bags.....lb.	.07	.08
Comfrey Root, bags.....lb.	.11	.12
Condurango Bark, bags.....lb.	.09	.10
Coriander Seed, Morocco, bags .....lb.	.06	.07
Bleached, bags.....lb.	.08	.09
Corn Silk, bales.....lb.	.06	.07
Cotton Root Bark, bales....lb.	.07	.08
Cowhage, 1 oz tins.....oz.	1.00	...
Cramp Bark so called bales..lb.	.06	.07
True, bags.....lb.	.24	.26
Cranesbill Root, bags.....lb.	.08	.09
CUBEB BERRIES, XX bags .....lb.	.30	.31
Powdered, boxes.....lb.	.32	.33
Culvers Root, bags.....lb.	.13	.14
Cumin Seed, Morocco, bags..lb.	.14	.15
Cuttlefish, Bone Trieste, Straps .....lb.	.19	.22
French, boxes.....lb.	.18	.21
Powdered, bbls.....lb.	.09	.10
Broken, bales.....lb.	.07	...
Damiana Leaves, bales.....lb.	.16	.17
Dandelion Root, Imp. bags..lb.	.13	.14
Deer Tongue Leaves, bales...lb.	.07	.09
Digitalis Leaves, bales.....lb.	.28	.30
Dogwood Bark, Jamaica bags .....lb.	.07	.08
American bales.....lb.	.06½	...
Doggrass Root, USP, cut bags .....lb.	.11	.12
Dragons Blood Mass, cases..lb.	.80	.85
Reeds, boxes.....lb.	.85	.90
Echinacea Root, bags.....lb.	.16	.17
Elcampane Root, bags.....lb.	.06	.07
Elder Flowers, bags.....lb.	.14	.15
Elemi Gum, 85 lb cases.....lb.	.09½	.10
Elm Bark, bundles.....lb.	.16	.17
Grinding bags.....lb.	.08½	.09½
Powdered, bbls.....lb.	.15	.18
Ephedra Vulgaris, bales....lb.	.05	.06
ERGOT, 150-200 lb bags....lb.	.38	.45
Eucalyptus Leaves, bales....lb.	.06	.07
Euphorbia Pilulifera, Herb, bags.....lb	.06	.08
Euphorbium Gum, cases....lb.	.17	.20
Fennel Seed, French, bags...lb.	.08	.08½
German bags.....lb.	.09	.10
Foenugreek Seed, 200 lb bags .....lb.	.04½	.05
Fish Berries, 100-125 lb bag..lb.	.14	.15
Flax Seed, Whole 182 lb bbls.lb.	.05½	.06½
Ground, 180 lb bbls.....lb.	.06	.07½
Fringe Tree Bark or Root bags .....lb.	.10	.12
Fumigating Pastiles, boxes..lb.	.28	.30
Galangal Root, bags.....lb.	.08	.09
Galbanum Gum, cans.....lb.	.85	.90
Gamboge Gum, 100 lb cases..lb.	.53	.55
Powdered, cases.....lb.	.65	.70
Gelsemium Root, bags.....lb.	.07	.08
GENTIAN ROOT, bags....lb.	.16	.17
Ground bbls, boxes.....lb.	.18	.19
Powdered, bbls, boxes....lb.	.19	.20
Ginger, African, bags.....lb.	.05½	.06½
Jamaica Grinding bags....lb.	.13	.16
Cochin ABC & Lemon, bags .....lb.	.05½	.06
Ginseng Root, cultivated cs..lb.	8.00	10.00
Wild Southern, cases.....lb.	11.00	13.00
Golden Seal Root, bags.....lb.	.90	.95
Powdered, boxes.....lb.	1.0	1.10
Herb, barrels.....lb.	.35	.40
Grains of Paradise, bags....lb.	.08½	.09
Grindelia Robusta, Herb, bale .....lb.	.07	.08
Guaiac Gum, 150 lb cases....lb.	.20	.22
Strained 75 lb cases...lb.	.70	.75
Guarana, tin cases.....lb.	.50	.55
Hellebore Root, Black, bbls. lb.	.05½	.06
White, 250 lb bbls.....lb.	.07	.08
Powdered.....lb.	.10	.11
Helonias Root, bags.....lb.	.25	.27
Hemp Seed, bags.....lb.	.03	.03½
Henbane Leaves, USP, bales.lb.	.11	.12
HENNA LEAVES, bales....lb.	.07	.08
Powdered.....lb.	.10	.15
Hops, bales.....lb.	.75	.80
Horehound, Herb, bales....lb.	.06½	.07
Hydrangea Root, bales.....lb.	.06	.07

IPECAC ROOT, Cartagena, bags.....lb.	.75	.80
Powdered, 220 lb bbls...lb.	.85	.90
Nicaraugua. 125 lb. bags lb.	.60	.65
Isinglass, American, 130 lb cases .....lb.	.95	1.00
Russian (Beluga), boxes...lb.	4.50	...
Jaborandi Leaves, bales.....lb.	.10	.11
Jalap Root, Whole, 150 lb bag.....lb.	.16	.17
USP, Powd, 250 lb bbls....lb.	.19	.20
Japan Wax 224 lb. cases.....lb.	.07¼	.08
JUNIPER BERRIES, 125 lb bags.....lb.	.06	.06½
Kamala, boxes.....lb.	.21	.22
Karaya Gum, Powdered, bbls.lb.	.11	.20
Kava Kava Root, bags.....lb.	.13	.14
Kino Gum, Black, cases.....lb.	.70	.75
Kola Nuts, 150 lb bags.....lb.	.05½	.06
Lady Slipper Root, bags....lb.	.28	.30
Larkspur Seed, bags.....lb.	.25	.27
Laurel Berries, bags.....lb.	.08	.09
Leaves, Greek, bales .....lb.	.04½	.05
Lavender Flowers, Ordinary.lb.	.16	.20
Selected.....lb.	.30	.32
Lemon Peel, bags.....lb.	.08½	.09
LICORICE ROOT, Whole bbls .....lb.	.12	.15
Spanish Natural bales....lb.	.05½	.07
Powdered, bbls.....lb.	.09	.11
Selected Cases.....lb.	.12	.15
Cutting, 125 lb bags....ln.	.06	.06½
Turkish, 150 lb bales.....lb.	.05	.06
Linden Flowers with leaves, bales.....lb.	.14	.15
Without leaves, bales...lb.	.15	.16
Liverwort Leaves, bales.....lb.	.13	.14
Lobelia, Herb, bales.....lb.	.18	.20
Seed, bags.....lb.	.21	.26
Lovage Root, Imp., bags....lb.	.15	.17
Lupulin N. F., tins.....lb.	1.55	2.00
Lycopodium, 88 lb. cases....lb.	.28	.30
MACE SIAUW, No. 1, cases .....lb.	.43	.48
Banda No. 1, cases.....lb.	.46	.50
Batavia No. 2, cases.....lb.	.23	.24
Malva Flowers, Blue, bales..lb.	.60	.65
Black, bales.....lb.	.18	.33
Leaves, bales.....lb.	.12	.13
Manaca Root, bales.....lb.	.18	.19
Manna, Large Flake, cases...lb.	.40	.45
Small Flake, cakes.....lb.	.25	.30
Sorts, cases.....lb.	.45	.50
Mandrake Root, bags.....lb.	.08	.09
Marjoram, Herb.....lb.	.24	.24½
French, No. 1 bales.....lb.	.21	.22
German, bales.....lb.	.30	.35
Mastic Gum, 120 lb. cases..lb.	.19	.21
Matico Leaves, bales.....lb.	.15	.16
Mezereon Bark, bags.....lb.	.03¼	.03¾
Millet Seed, Yellow, bags...lb.	.07	.08
Montan Wax, Crude, bags..lb.	.26	.30
Bleached, pure. bags.....lb.	.09	.10
Moss, Iceland, bales.....lb.	.11	.12
Irish, Bleached, bales....lb.	.95	1.00
Mullein Flowers, tins.....lb.	.07	.07½
Leaves, bales.....lb.	.06	.07
Musk Root, Russian, bags...lb.	.21	.23
Myrrh Gum, 200 lb, cases...lb.	.22	...
Nutgalls, Chinese, bags.....lb.	...	.20
Aleppy, bags.....lb.	.13	.15
Powdered, bags.....lb.	.13	.13½
Nutmegs, 110's cases.....lb.	.16½	.17
75's & 80's cases.....lb.	.09	.09½
Grinding, bags, W.I.....lb.		
NUX-VOMICA Buttons, bag .....lb.	.05	.06
Powdered, 200 lb bbls..lb.	.09	.10
Oak Bark, bags.....lb.	.05½	.06
Olibanum Gum, 280 lb cases Siftings.....lb.	.06	.07
Tears, No. 1 Extra.....lb.	.19	.21
No. 2.....lb.	.14	.15
No. 3.....lb.	.09	.10
Opium Gum, USP, cases....lb.	10.00	11.00
Granular, cans.....lb.	11.00	12.00
Powdered, USP, cans....lb.	11.00	12.00
Orange Flowers, cases.....lb.	.25	.30
Peel, Bitter, bags.....lb.	.07½	.08
Sweet bags.....lb.	.07½	.08
ORRIS ROOT, Flor. bid. bags .....lb.	.09	.10
Powdered, 200 lb bbls..lb.	.12	.13
Verona, bags.....lb.	.07	.08
Powdered, 200 lb bbls..lb.	.11	.12
Fingers, boxes.....lb.	.80	.85
Ozokerite Wax, Brown, Hard lb.	...	...
Bags.....lb.	.28	.30
Green, Hard, bags.....lb.	.40	.42
Yellow, Refined, bags.....lb.	.22	.26
Papain, Crude, 150 lb cases..lb.	1.50	1.55
Pure, Powdered, 10 lb bot..lb.	1.60	1.90
Paprika, Spanish, bags.....lb.	.20	.24
Mild Hungarian, bags .....lb.	.21½	.22½
Pareira Brava Root, bags....lb.	.16	.18
Passion Flower, bales.....lb	.05½	.06½
Patchouli Leaves, bales.....lb.	.15	.16
Pennyroyal, Herb, 100 lb bags .....lb.	.08	.09
Leaves, 100 lb bags.....lb.	.11	.12

Drugs and Spices

PEPPERMINT LEAVES, Imp bales	lb.	.30 .50
Domestic, bales	lb.	.18 .20
Pichi Leaves, bags	lb	.08 .09
Pimento Select, bags	lb.	.06 .06½
Pink Root, True, bags	lb.	.26 .28
Pleurisy Root, bags	lb.	.13 .14
Poke Berries, bags	lb.	.15 .16
Root, 200 lb bales	lb.	.05½ .06
Pomegrant Bark of Root, bags	lb.	.25 .28
Bark of Fruit, bags	lb.	.15 .20
Bark of Tree, bags	lb.	.15 .17
POPPY FLOWERS, Red, bags	lb.	.40 .45
Prickly Ash Bark	lb.	.12 .15
Southern bags	lb.	.11 .11½
Northern, bags	lb.	.12 .13
Berries, bags	lb.	.20 .21
Prince's Pine, bales	lb.	.15 .20
Psyllium Seed, Black, bags	lb.	.14 .16
Plantago Seed, Blonde, Bags	lb.	.06 .07
Pulsatilla, Herb, bags	lb.	.10 .11
Pumpkin Seed, bags	lb.	.11 .12
Pyrethrum Flowers	lb.	.26 .28
Pwd., pure, 200 lb bbls.	lb.	.29 .31
Quassia Chips, bags	lb.	.06 .07
Quebracho, bulk, 125 lb. bbl.	lb.	.20 .21
Quince Seed, Spanish bags	lb.	.75 .80
Persian, bags	lb	.85 1.25
Rape Seed, German, bags	lb.	.04½ .05½
Dutch, bags	lb.	.05 .05½
Raspberries, Dried, bbls.	lb.	.25 .30
Red Saunders, bags	lb.	.08 .09
Rhatany Root, bags	lb.	.11 .12
Rhubarb Root, HD, cases	lb.	.20 .21
Powdered, bbls.	lb	.24 .25
Rosemary Leaves, bales	lb.	.05½ .06
Flowers, cases, bales	lb.	.28 .32
Rose Petals, pale	lb.	.13 .14
Red	lb.	.45 .50
Rue, Herb, bales	lb.	.18 .20
Sabadilla Seed, bags	lb.	.21 .22
Powdered, bbls.	lb.	.24 .25
SAFFRON FLOWERS, American, bales	lb.	.16 .18
Valencia, 1 lb cans	lb.	11.25 11.75
Sage Dalmatian, bales	lb.	.05 .05½
Sandarac Gum, 300 lb bbls.	lb.	.23 .24
Sarsaparilla Root, Honduras, bales	lb.	.55 .60
Mexican, bales	lb.	.13 .14
Sassafras Bark, Ordinary, bales		.08 .10
Select, bales	lb.	.12 .15
Savory Leaves, bale	lb.	.05½ .06½
Saw Palmetto Berries, bags	lb.	.07 .08
Scammony Resin, boxes	lb.	1.30 1.35
Root, bags	lb.	.06 .07
Senega Root, bags	lb.	.42 .45
SENNA ALEX., 150 lb cases	lb.	.20 .25
Half leaf 150 lb bales	lb.	.08 .10
Sifting, 400 lb bales	lb.	.08 .09
Tinnevelly, Bold, 350 lb bales	lb.	.09 .11
Medium Leaf	lb.	.07½ .08½
Small Leaf	lb.	.06 .08
Pods, 350 lb	lb.	.08 .09
Powdered, 200 lb	lb.	.08 .09
Serpentaria Root, bags	lb.	.35 .36
Simaruba Bark, bales	lb.	.23 .25
Skullcap Leaves, Eastern, bales	lb.	.25 .30
Western, bales	lb.	.14 .24
Skunk Cabbage, Natural, bales	lb.	.13 .15
Snake Root, Canada Natural, bags	lb.	.16 .18
Canada, Stripped, bags	lb.	.40 .45
Soap Bark	lb.	.08 .09
Cut, 125-175 lb bags	lb.	.06 .07
Crushed, 200 lb bbls.	lb.	.15 ...
Powdered, bbls.	lb.	.09 .10
Spearmint Leaves, American, bales	lb.	.17 .22
Spermaceti, blocks, cakes, cases	lb.	.22 .23
Bulk	lb.	.21 .22
Spikenard Root, bags	lb.	.07 .08
Squaw Vine, bales	lb.	.11 .12
Squills, White, tested	lb.	.05 .07
Powdered, bulk	lb.	.13 .15
Stavesacre Seed, bags	lb.	.13 .14
Stillingia Root, bags	lb.	.06 .07
Stone Root, bags	lb.	.07 .08
St. Ignatius Beans, bags	lb.	... .90
St. John's Bread, bags	lb.	... .06
STRAMONIUM LEAVES, bales	lb.	.10 .11
Seed, bags	lb.	.07½ ...
Strophanthus Seed, Kombe, bags	lb.	1.45 1.65
Styrax Liquid, Artificial	lb.	.26 .35
Genuine, USP	lb.	.38 .43
Sunflower Seed, bags Calif.	lb.	.05 .06
South American, bags	lb.	No stocks
Tamarinds, bbls.	lb.	.05½ .06½
Kegs	keg	3.75 3.85
Tansy, Herb, bales	lb.	.12 .13
Thus Gum, 450 lb bbls.	lb.	.05½ .06½
THYME, Spanish, bags	lb.	nominal
French, bags	lb.	.09½ .10
Tonga Root	lb.	.20 .23
Bark, bundles	lb.	.20 .23
Tonka Beans, Angostura Cases		2.25 2.50
Para cases	lb.	.65 .75
Surinam cases	lb.	1.35 1.50
Tragacanth Gum, No 1, 100 lb. cases	lb.	1.00 1.10
No. 2	lb.	.90 1.00
No. 3	lb.	.70 .80
Powdered, 50 lb boxes	lb.	.60 .90
Turkish cases	lb.	.50 .70
Turmeric Root Madras, bags	lb.	.06 .06½
Aleppy bags	lb.	.05½ .06
Powdered	lb.	.10 .12
China bags	lb.	.11 .12
Turpentine Venice True, 80 lb cases	lb.	.30 .38
Artificial, 80 lb cases	lb.	.15 .16
Uva Ursi Leaves, bales	lb.	.05 .06
Valerian Root, Belgium bags	lb	.14 .16
VANILLA BEANS, Mexican, whole, cases	lb.	3.00 4.00
Cuts, cases	lb.	2.40 2.60
Bourbon, cases	lb.	.80 1.25
Vetivert Root, 100 lb bags	lb.	.20 .25
Violet Flowers, bags	lb.	.85 .90
Wahoo Bark of Root, bags	lb.	.35 .37
Bark of Tree, bags	lb.	.13 .14
White Pine Bark, Roseed, bags	lb.	.05½ .06
White Poplar Bark, bags	lb.	.06 .07½
Wild Cherry Bark, Natural thin, Green	lb.	.06 .07
Rossed bales	lb.	.09 .10
Thick Rossed, bales	lb.	.04 .05
Wild Indigo Root, bags	lb.	.09 .10
Willow Bark, bags	lb.	.05 .06
White, bags	lb.	.15 ...
Witch Hazel Bark, bags	lb.	.05 .06
Leaves, bales	lb.	.06 .07
Wormseed, American, bags	lb.	.06 .07
Wormwood, Herb, Imp., bales	lb.	.08 .09
Yellow Dock Root, bags	lb.	.08 .09
Yerba Mate, bags	lb.	.13 .15
Santa, bags	lb.	.07 .08



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PATENTS

(*Continued from page 194*)

Vitamin Concentrates From Fats

An aluminum salt, such as aluminum chloride is added to saponified fat in order to precipitate an aluminum soap which is filtered out and filtrate is then evaporated. W. G. Christiansen, W. S. Jones and E. Moness. Ass. E. R. Squibb & Sons. U. S. P. 1,897,039. filed Sept. 7, 1928.

Disinfecting and Deodorizing Device

Porous block of balsa wood is used as carrier for volatile disinfecting and deodorizing substances. F. J. Curran. U. S. P. 1,897,573, filed Sept. 20, 1928.

Therapeutic Adsorbent Preparations

Tablets or pills are prepared by mixing activated carbon, with solid capable of swelling, e.g., dried vegetable mucilage, and molding mixture under such conditions that swelling is avoided as far as possible. Binder such as sugar or gum arabic may be included. Pharm. Werke. "Norgine" A. G. Aust. P. 130,342. Filed May 15, 1932.

Salve for Treating Wounds

Beeswax 38.5 is fused with refined olive oil 38.5, and powdered camphor 11.5, powdered zinc oxide 11.5 and dried powdered saffron 0.05 are added in turn. J. Fuchs. Aust. P. 129,939. Filed Apr. 15, 1932.

Pills, Pastilles, etc.

Manufacture pills containing alternate layers of medicine and protective substance or coated with protective compound consisting of resin, fat or fatty acid and solid substance soluble in stomach juices, *such as alkaline earth carbonate or magnesium oxide.* Pharm. Werke. "Norgine" and S. Hermann. Aust. P. 130,794. Filed June 15, 1932.

Depilatory

An alkaline solution of a stannite such as sodium compound is stabilized with sodium potassium tartrate. R. H. McKee and E. H. Morse. U. S. P. 1,899,707, filed Jan. 4, 1932.

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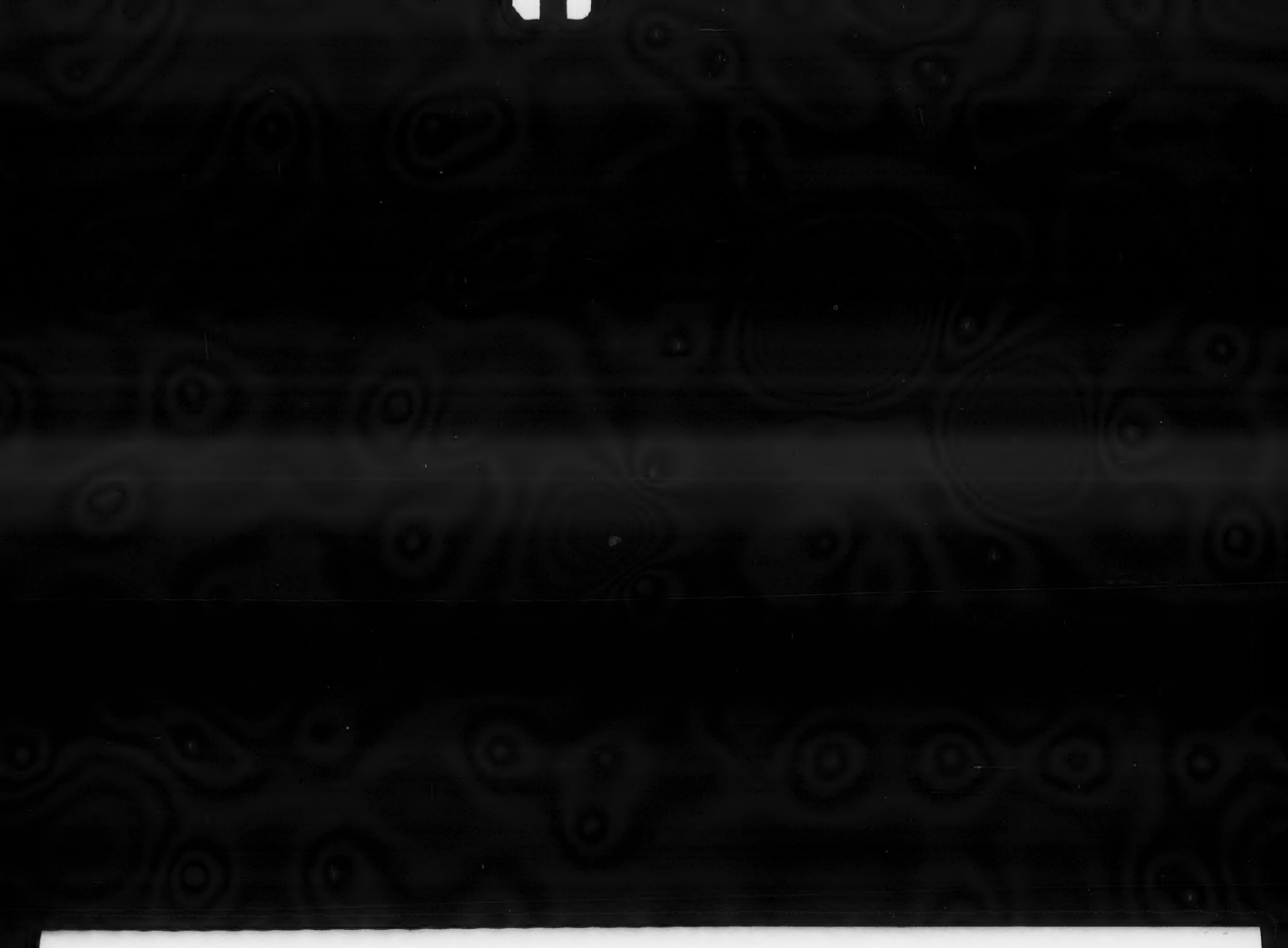
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